HOW TO DRAW
A MAP FROM MEMORY

BY

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GLASGOW, DUBLIN, AND BOMBAY
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CONTENTS

Pages	MAP	Length of AB in degrees of Latitude	Length with Europe as 1	With England as 1
6, 7	EUROPE - - -	71 − 36½ = 34⅔	1	6½
8, 9	ASIA - - -	82½ − 2½ = 80	2⅓	14½
10, 11	AFRICA - - -	35°S to 37°N = 72	2	13
12, 13	NORTH AMERICA -	74 − 10 = 64	2	12
14, 15	SOUTH AMERICA -	55°S − 10N = 65	2	12
16, 17	OCEANIA - - -	43S − 5N = 48	1½	9
18, 19	ENGLAND - - -	55⅔ − 50⅛ = 5½	⅙	1
20, 21	SCOTLAND - -	58⅔ − 54¾ = 3 11/12	⅑	⅔
22, 23	IRELAND - - -	51½ − 55¼ = 3¾	⅑	⅔
24, 25	BRITISH ISLES - -	58⅔ − 50⅛ = 8½	¼	1½
26, 27	FRANCE - - -	51 − 42⅓ = 8⅔	¼	1½
28, 29	SPAIN & PORTUGAL -	43¼ − 36 = 7¼	⅙	1⅛
30, 31	ITALY - - -	46½ − 37 = 9½	¼	1⅔
32, 33	GERMANY - - -	About 8⅞	¼	1⅔
34, 35	AUSTRIA, &c. - -	51 − 42½ = 8½	¼	1⅔
36, 37	HOLLAND, &c - -	53½ − 49½ = 4	⅛	¾
38, 39	PALESTINE - -	33⅜ − 31¼ = 2	1/16	⅓
40, 41	BALKAN PENINSULA -	45 − 36⅓ = 8⅔	¼	1⅔
42, 43	SCANDINAVIA, &c -	71⅓ − 54 = 17⅓	½	3¼
44, 45	MEDITERRANEAN -	46½ − 30 = 16½	⅓	3
46, 47	INDIA PROPER - -	36 − 8 = 28	⅚	5
48, 49	SOUTH AFRICA - -	35 − 10 = 25	¾	4½
50, 51	BRITISH N AMERICA	42 − 10 = 32	1	6

INTRODUCTION

THIS little book is an attempt to bring Map Drawing under the educational rule that we should, in every case, proceed from the simple to the complex. The arrangement is such that no Art Training is required by those who use it.

Each map is begun by drawing a straight line AB, and dividing it into twelve equal parts. (This may be likened to a shilling divided into pence.)

Lines are then drawn perpendicular to AB, each equal to so many twelfths of that line. (These lengths may be compared to so many pence.)

Through the points thus obtained are drawn the simple curves, into which the generalized outline of every map can be split up. None of these curves, taken alone, is more difficult than the curves used in writing.

The experience of seven years has shown me that, by thus splitting up the work, the most indolent and least capable may be made to produce fair memory maps.

The following points should be noticed —

I.—The fixing of points by means of co-ordinates is carried out in such detail that no one can fail to get a good outline. This gives a look of complexity to the maps, but it should be remembered that the curves are the essential parts and the straight lines merely helps. If any map is drawn according to the "Order of Work", all complexity will disappear.

II.—If every pupil has a copy of a map, a teacher, even without art training, may use the method by dictating the instructions and seeing that each part is done correctly. The directions in brackets will only need dictating for the first map drawn.

III.—A class that has once learned this method can draw a map to any scale in about a quarter of an hour. And, if every lesson on a map begins by the pupils drawing the outline from memory, at the end of the series most of them will be able to draw the curves without the help of the straight lines.

IV.—As the accuracy of an outline depends on the fractional parts of the upright line, a map may be drawn of any size by making AB of a length suited to the size of the paper. The length of AB settles the scale, so we

may get an exact idea of the relative sizes of countries, by comparing the lengths as given in the table of contents

V —The maps make good drawing copies, both for Freehand and Scale Drawing

VI —Parts of a map may be easily enlarged by taking some multiple of portions of AB and the lines depending on them

VII —Maps 42, 48, and 50 are inserted as examples of the method to be adopted in drawing any portion enlarged from the general maps of the continents From these it will be clear that any portion of a map may be drawn quite easily when the whole has been learned

VIII —On any meridian the distances between consecutive parallels are all equal So, also, are the distances between the meridians on any parallel If, therefore, two meridians and two parallels are learned as part of the outline, the rest may be put in by drawing similar lines at equal distances

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ORDER OF WORK

1. **Draw AB and divide it into twelve equal parts**

   (Bisect AB, bisect each half, mark these points with crosses, trisect each quarter, mark the new points with circles,—or, draw a line six inches long, and mark the half-inches)

II **Draw all straight lines**

   (Each perpendicular to AB passes through a cross or a circle The figures show the length of each line in twelfths of AB)

III. **Draw all red curves**

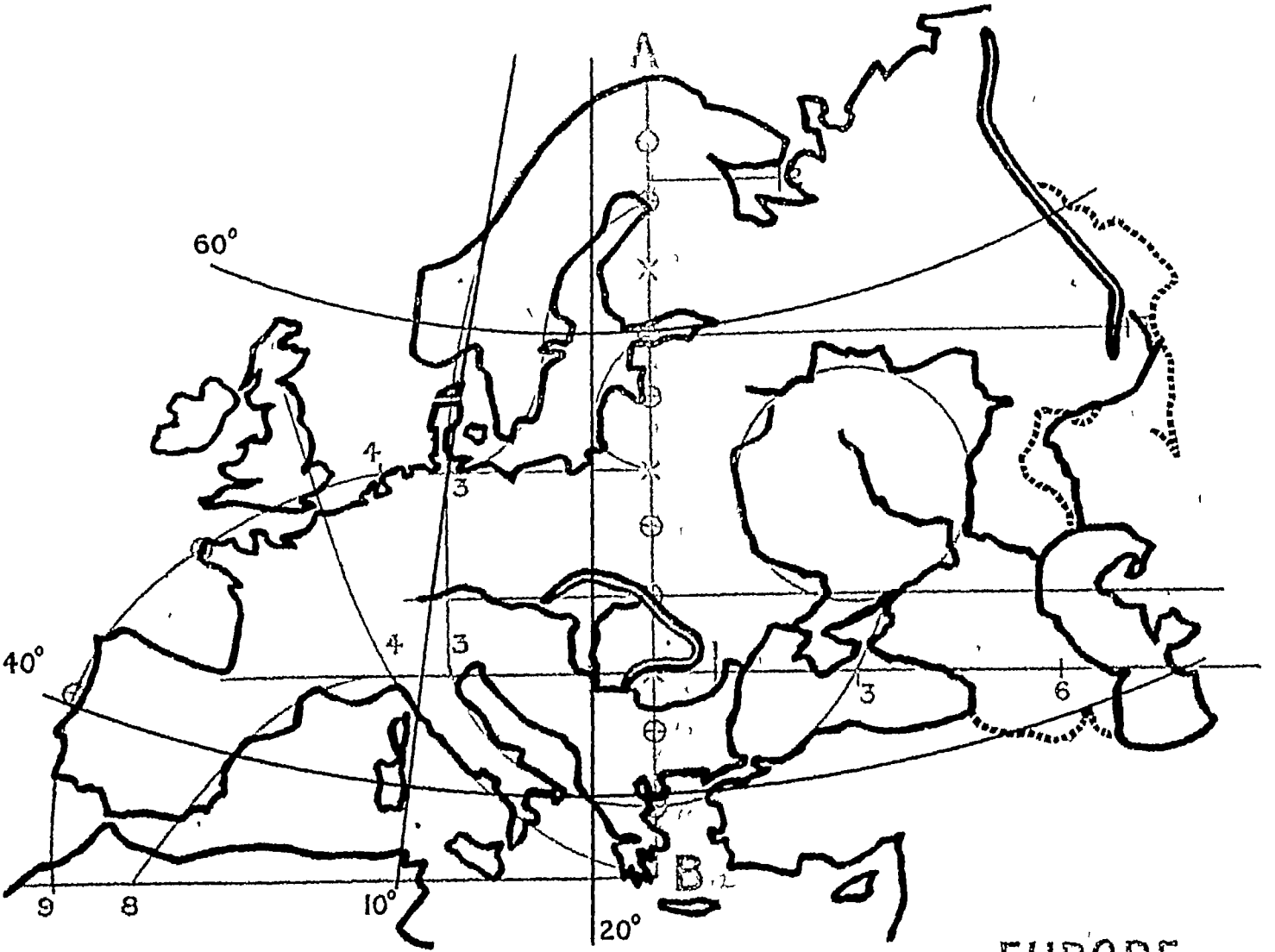
   (Where a curve changes its direction it almost always crosses a straight line The lines and figures thus obtained should be committed to memory at once)

IV **Draw all black lines**

   (The red lines should be drawn in pencil, and the black ones in ink)

Crosses divide all the lines on which they are placed into quarters, and circles into thirds or sixths

STATIONERS SCHOOL, RIDGE ROAD, N



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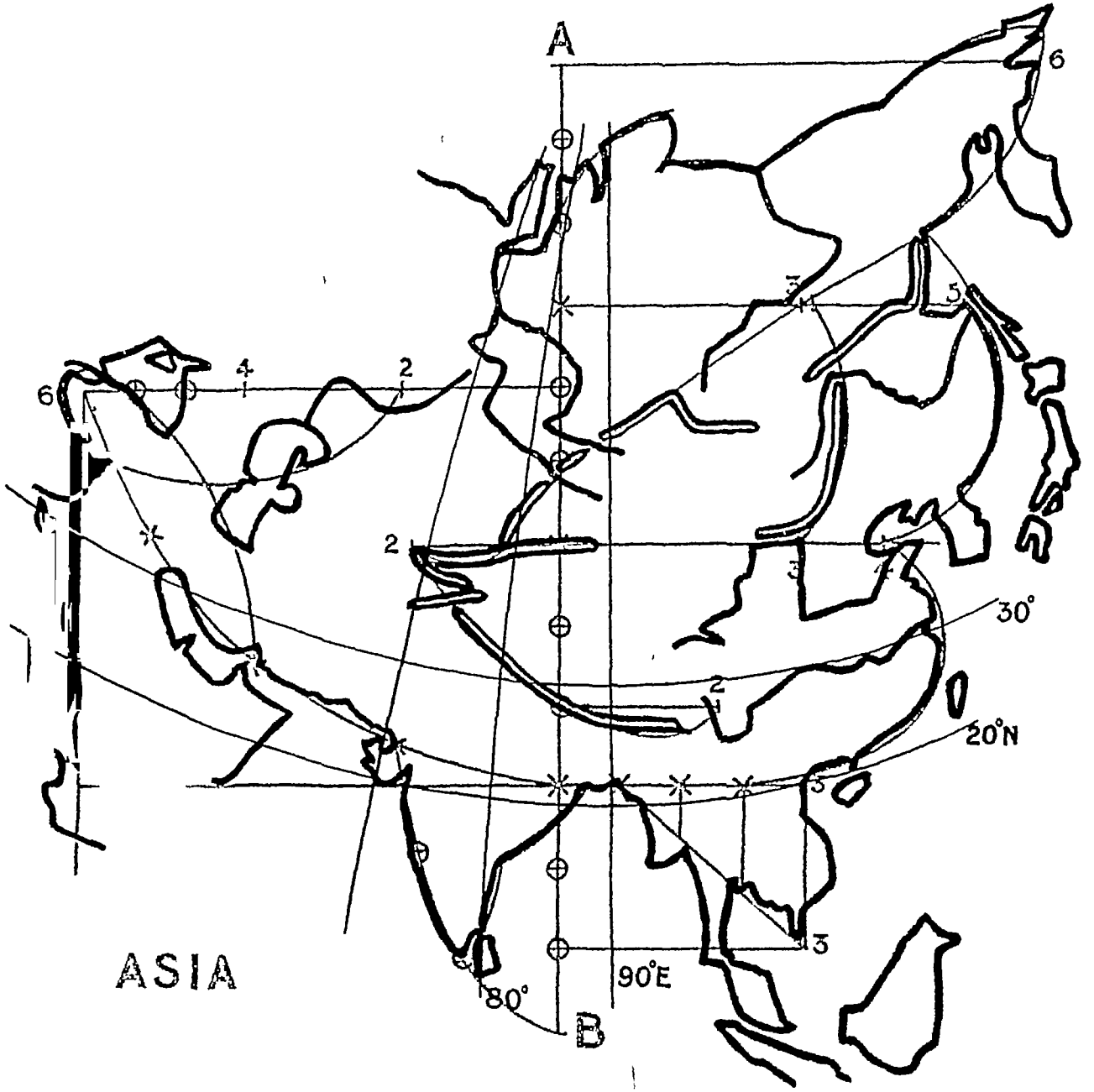
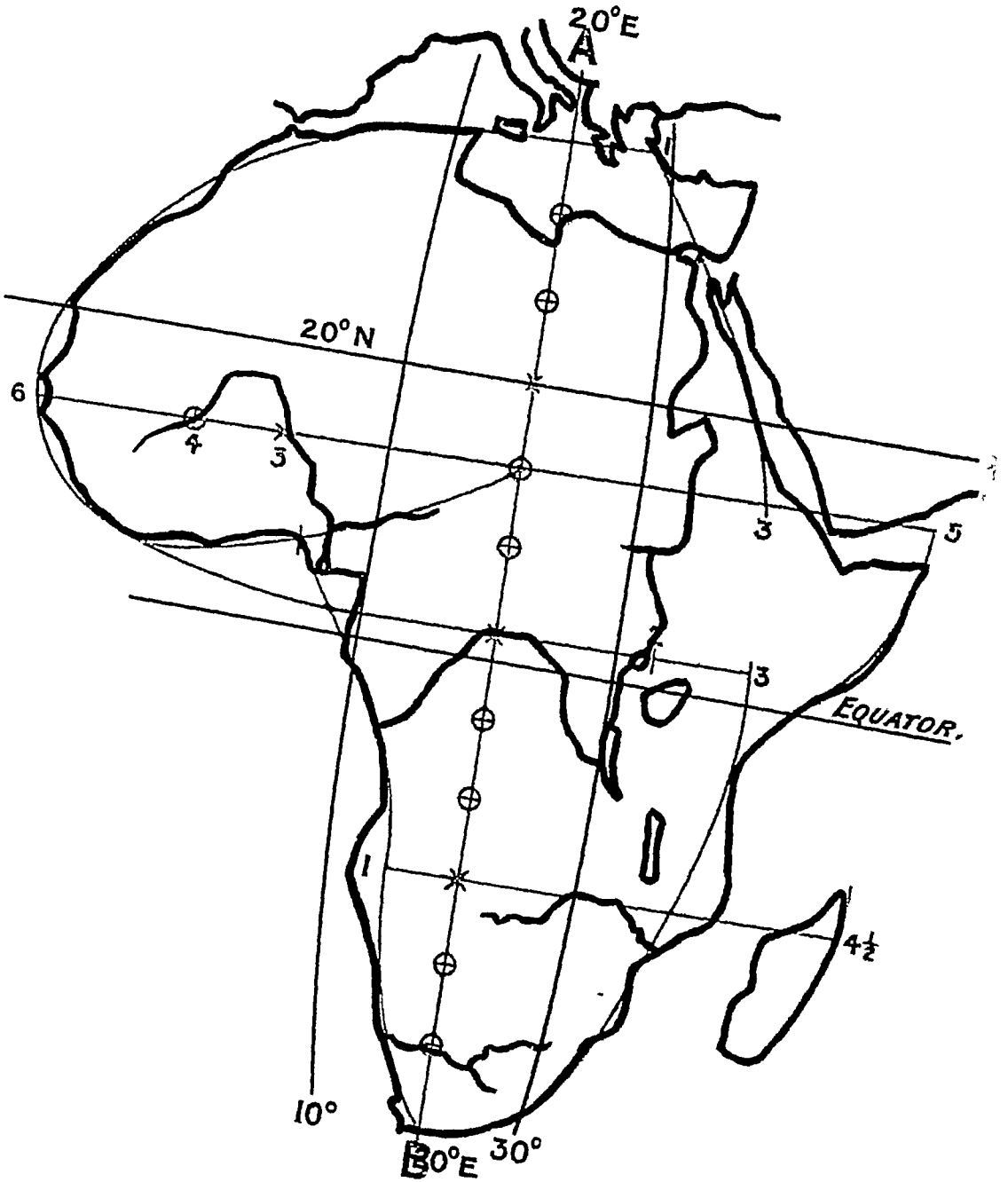

A
B
6
6
4
2
2
2
3
3
3
3
5
30°
20°N
90°E
80°
ASIA



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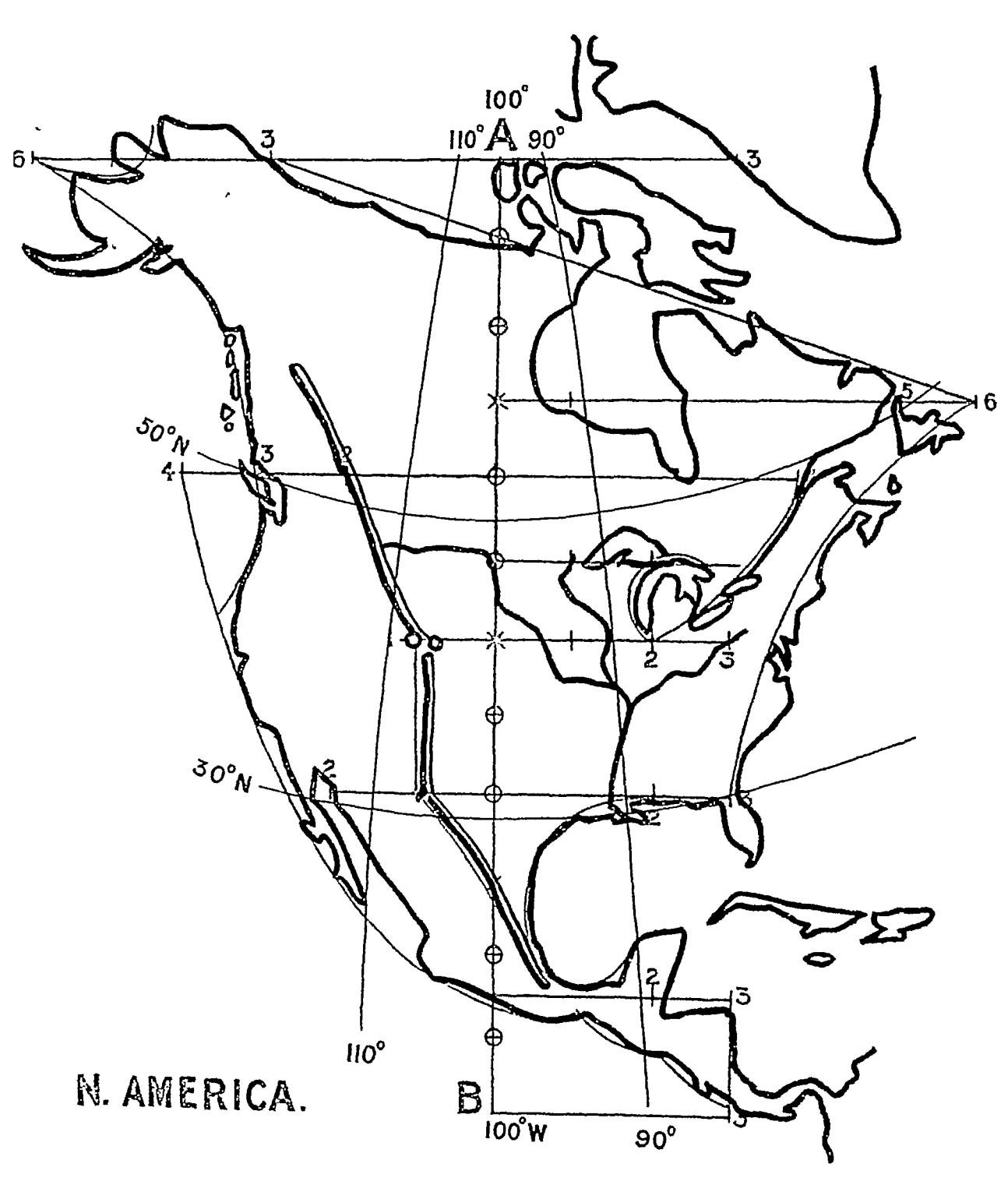
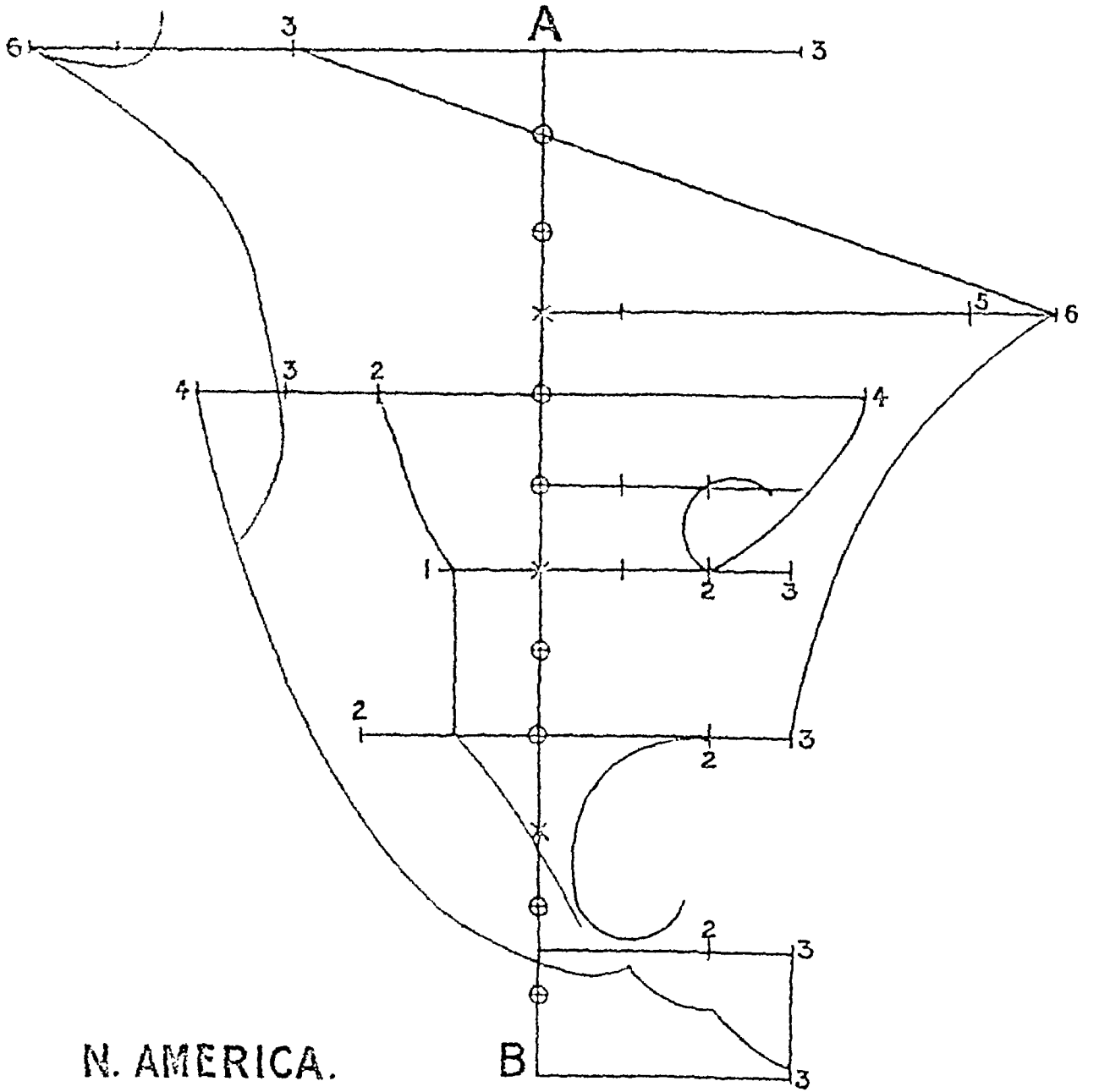


N. AMERICA.



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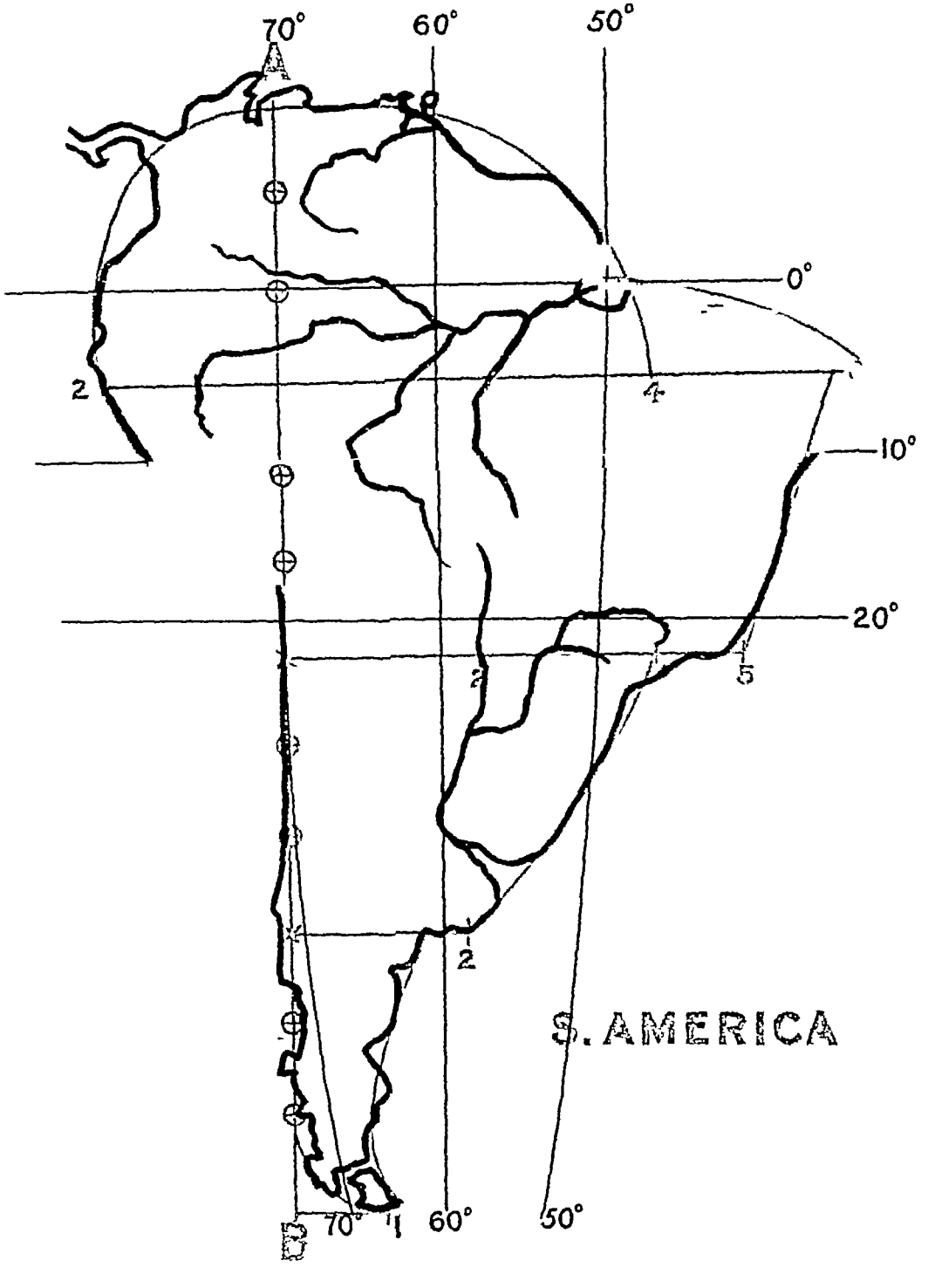
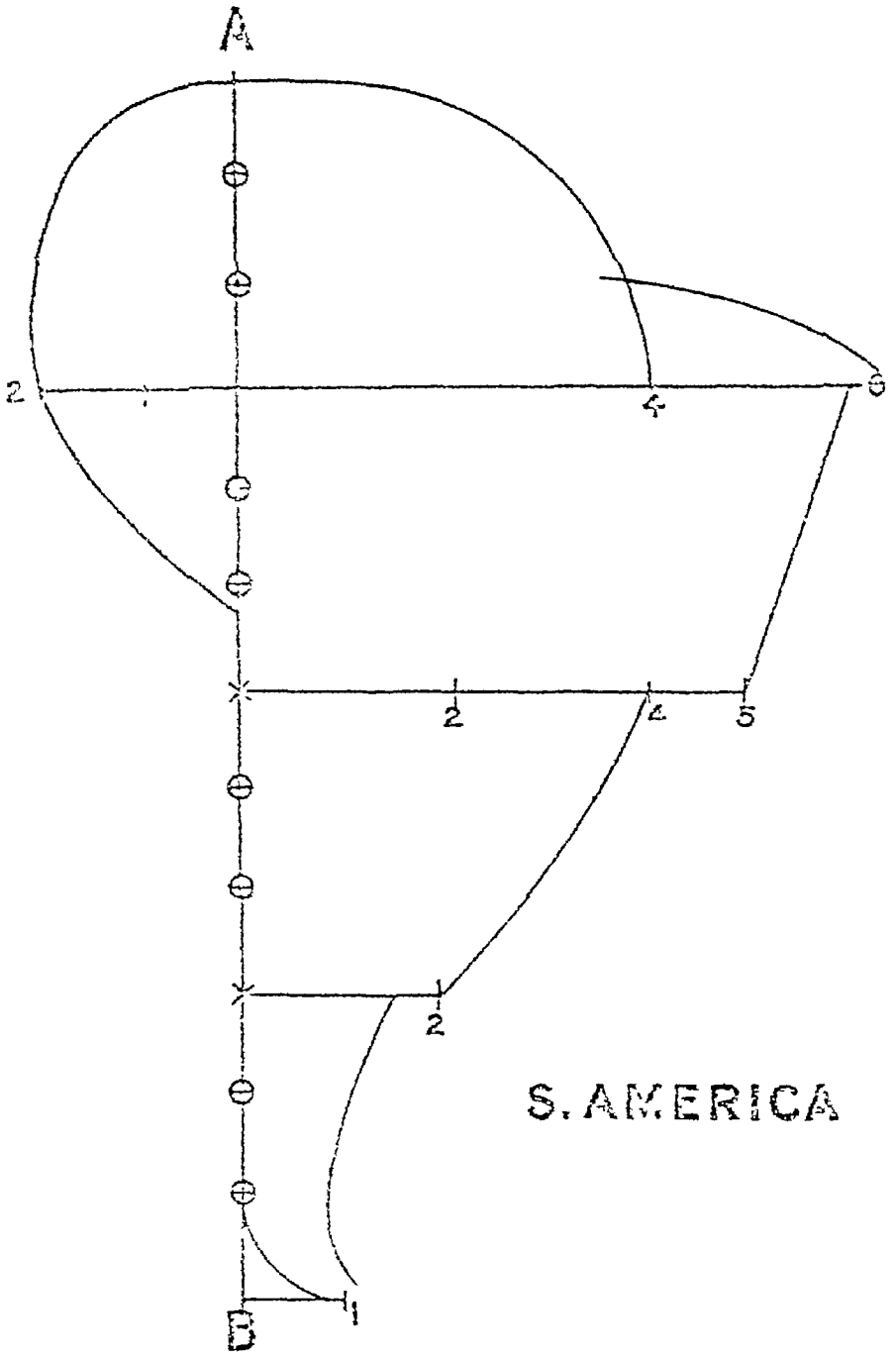
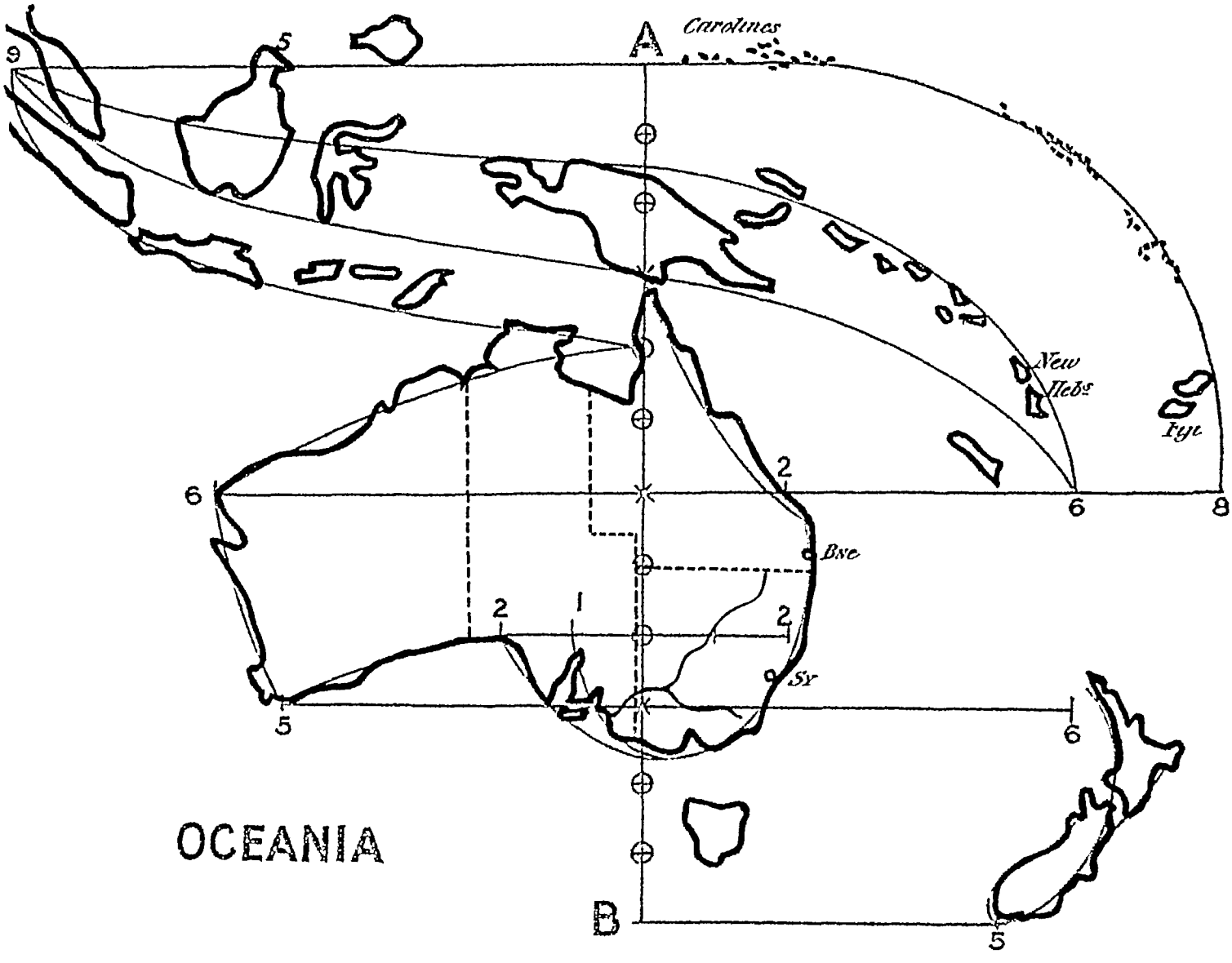
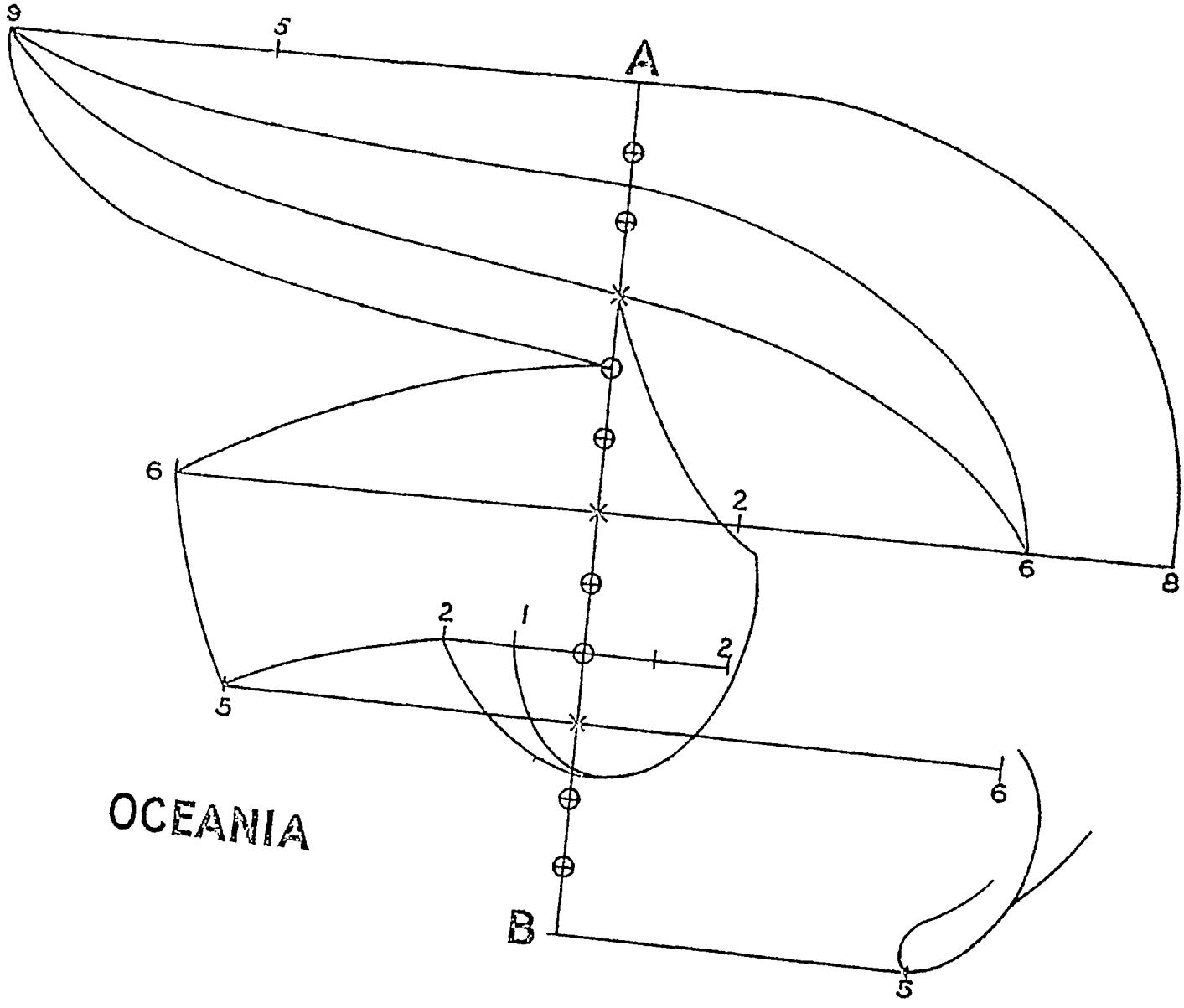
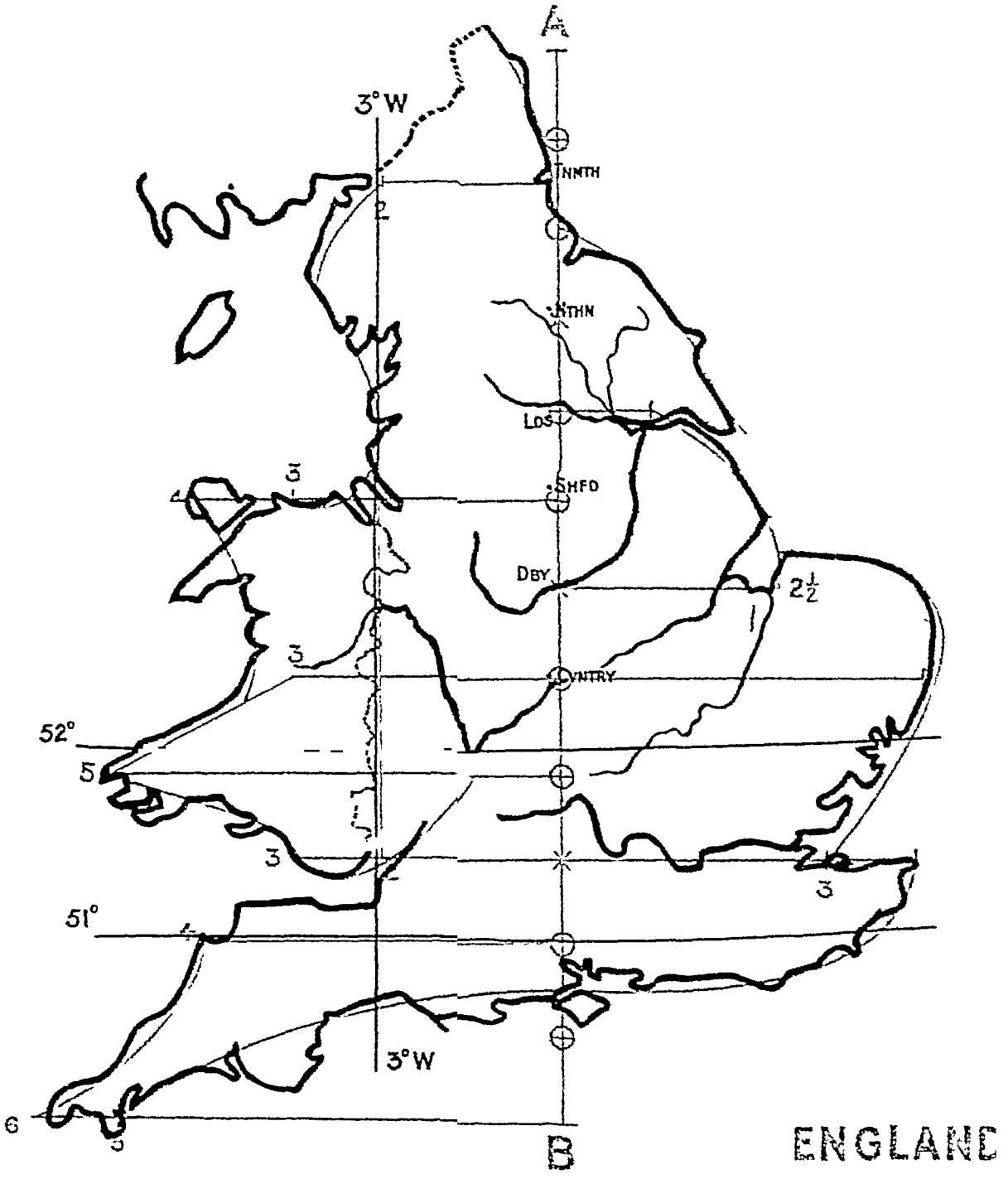

70°
60°
50°
A
0°
2
4
10°
20°
2
5
2
S. AMERICA
B
70°
60°
50°

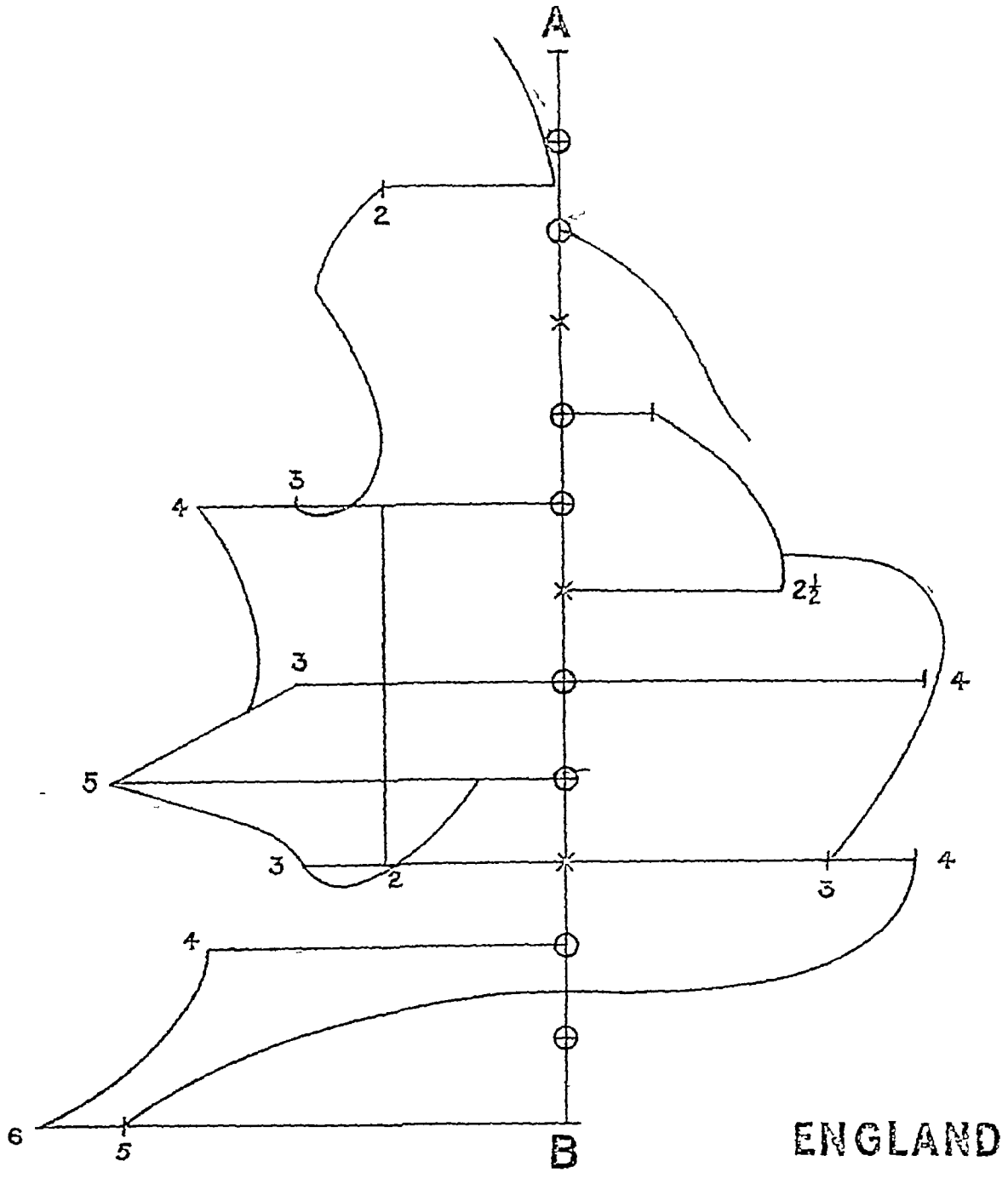

A
2
4
2
4
5
2
1
B
S. AMERICA

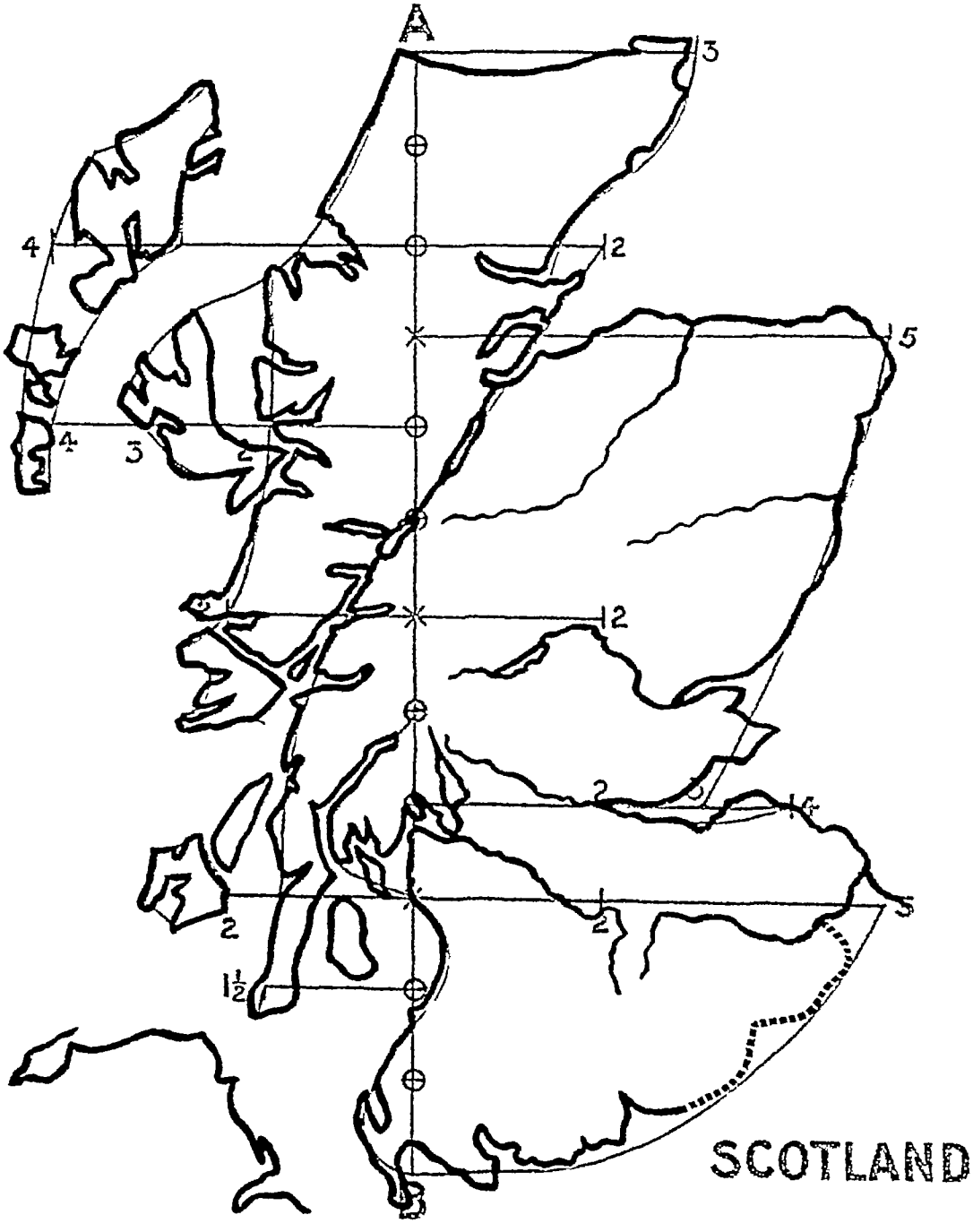

A
Carolines
New Hebs
Tyr
Bne
Sy
B
OCEANIA
9
5
6
8
2
1
2
2
5
6
5

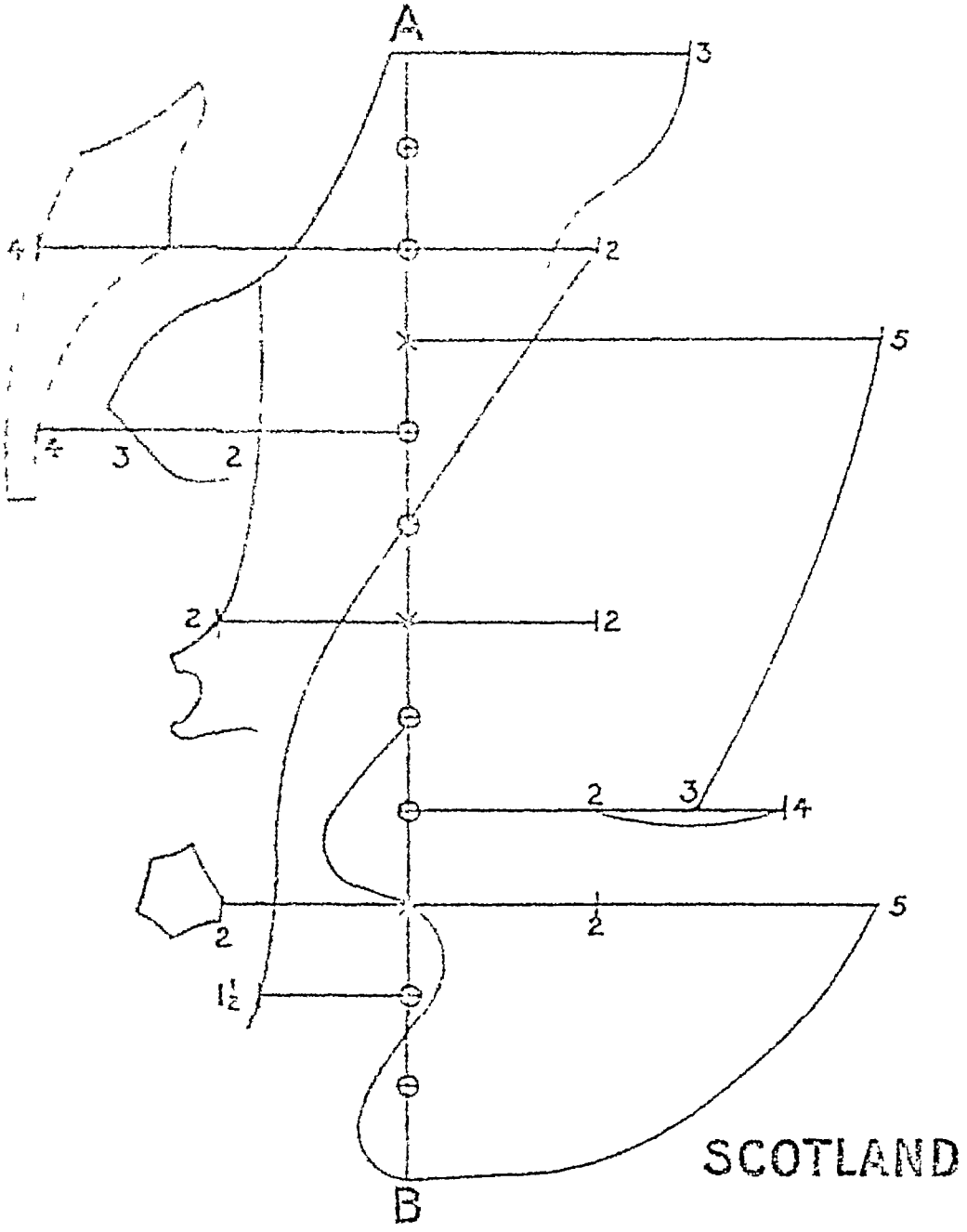


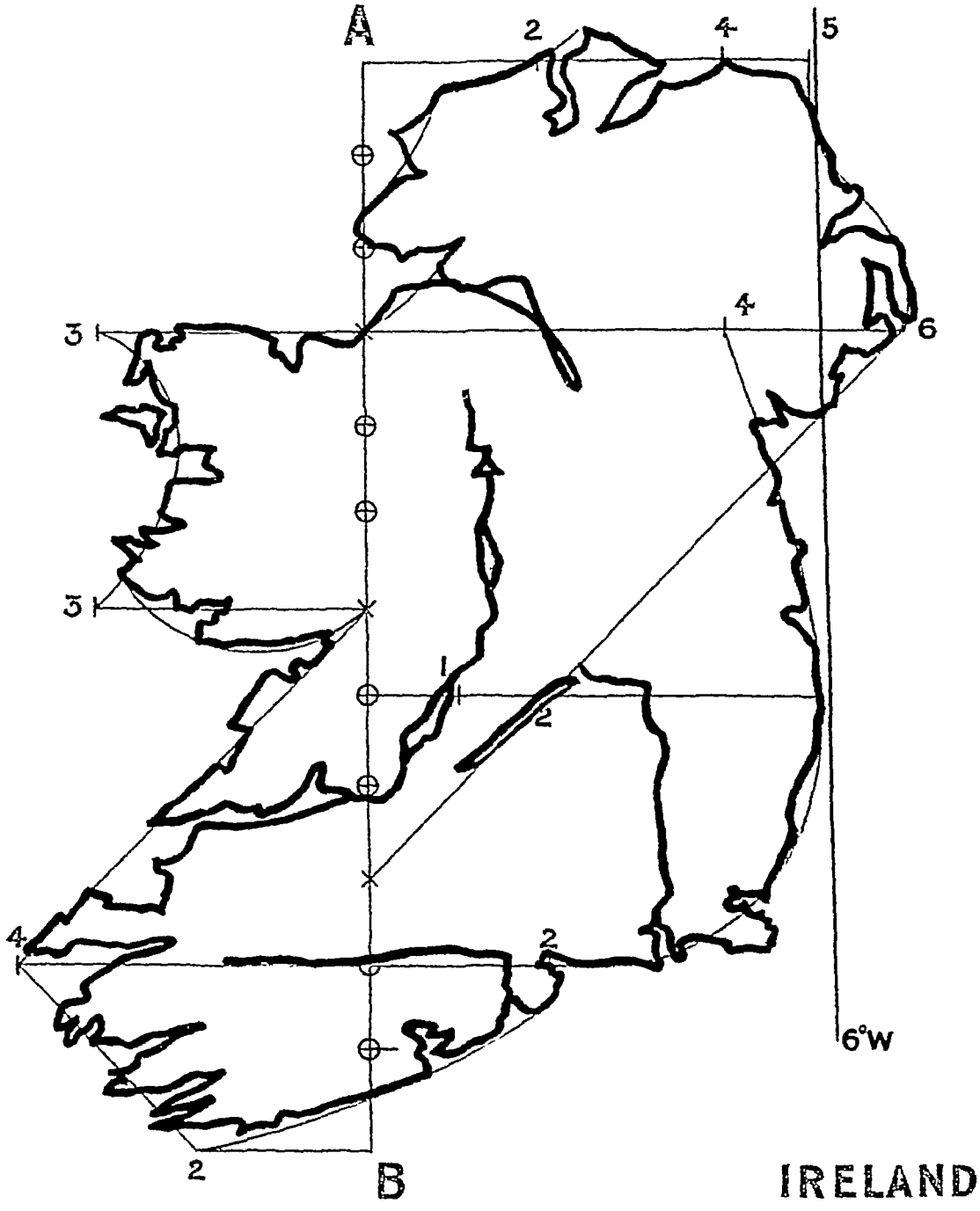
OCEANIA

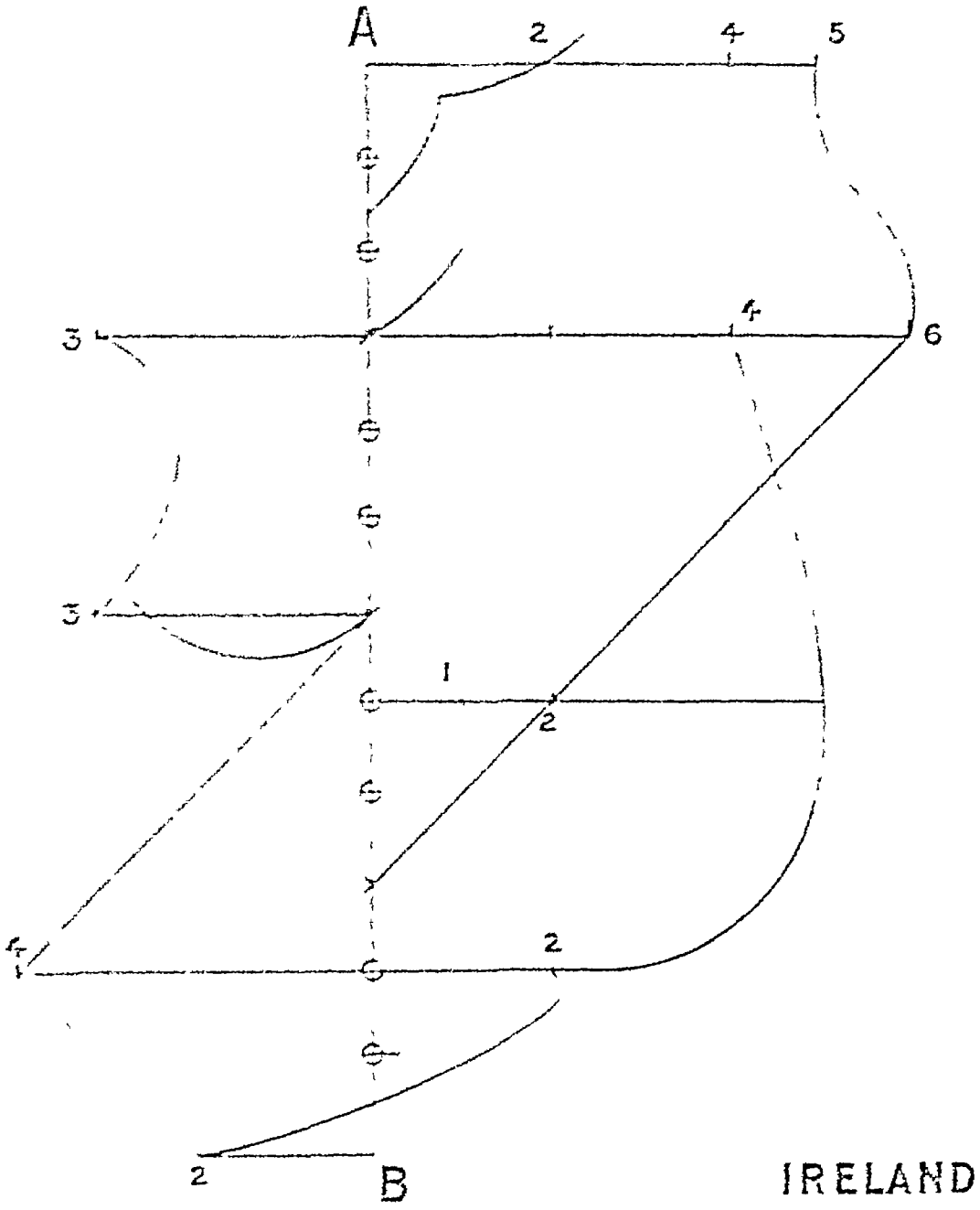

A
3°W
NNTH
NTHN
LDS
SHFD
DBY
CVNTRY
52°
51°
3°W
B
ENGLAND


A
2
3
4
2½
3
4
5
3
2
3
4
4
6
5
B
ENGLAND

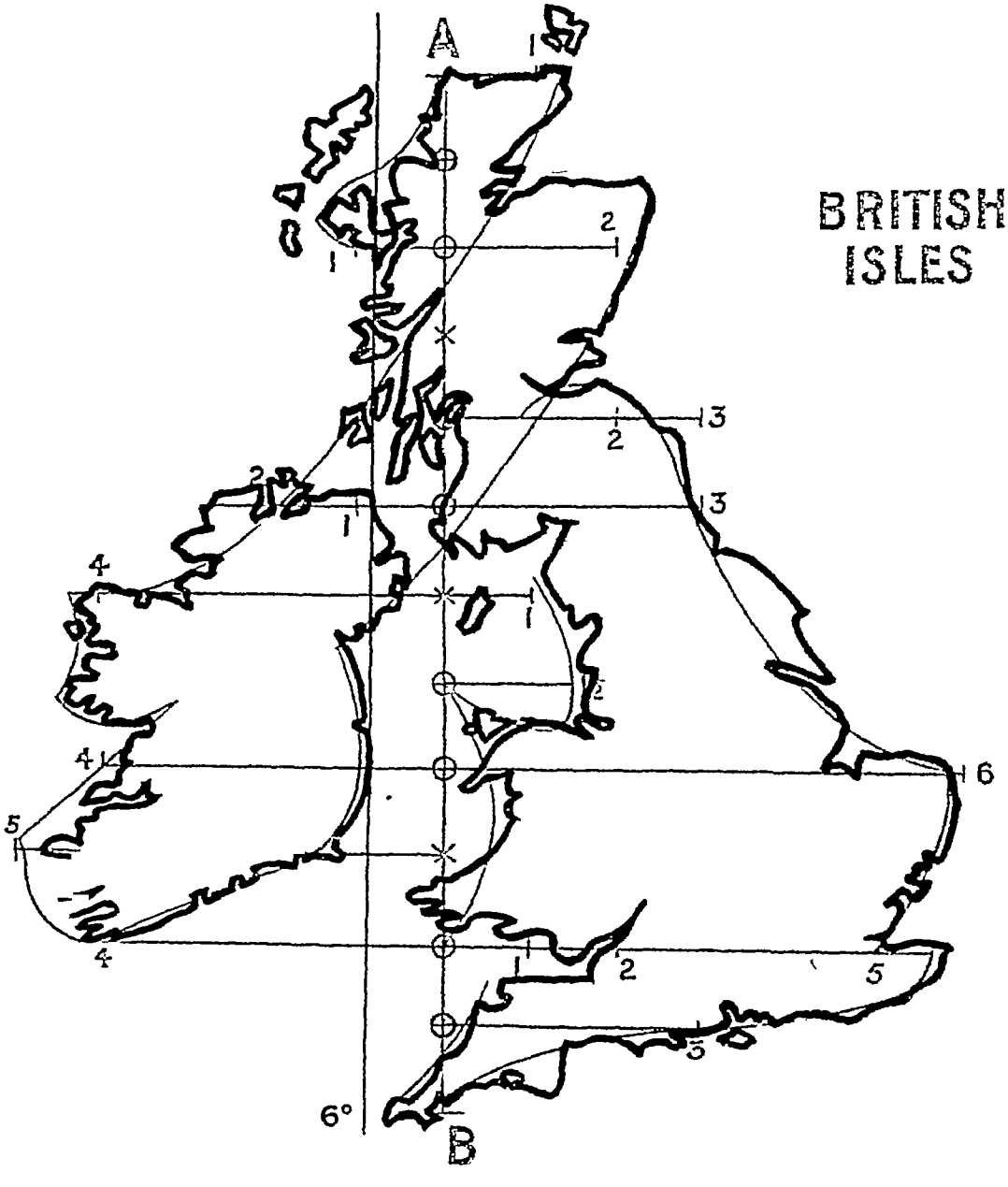

A
3
4
2
5
4
3
2
2
2
2
1½
SCOTLAND

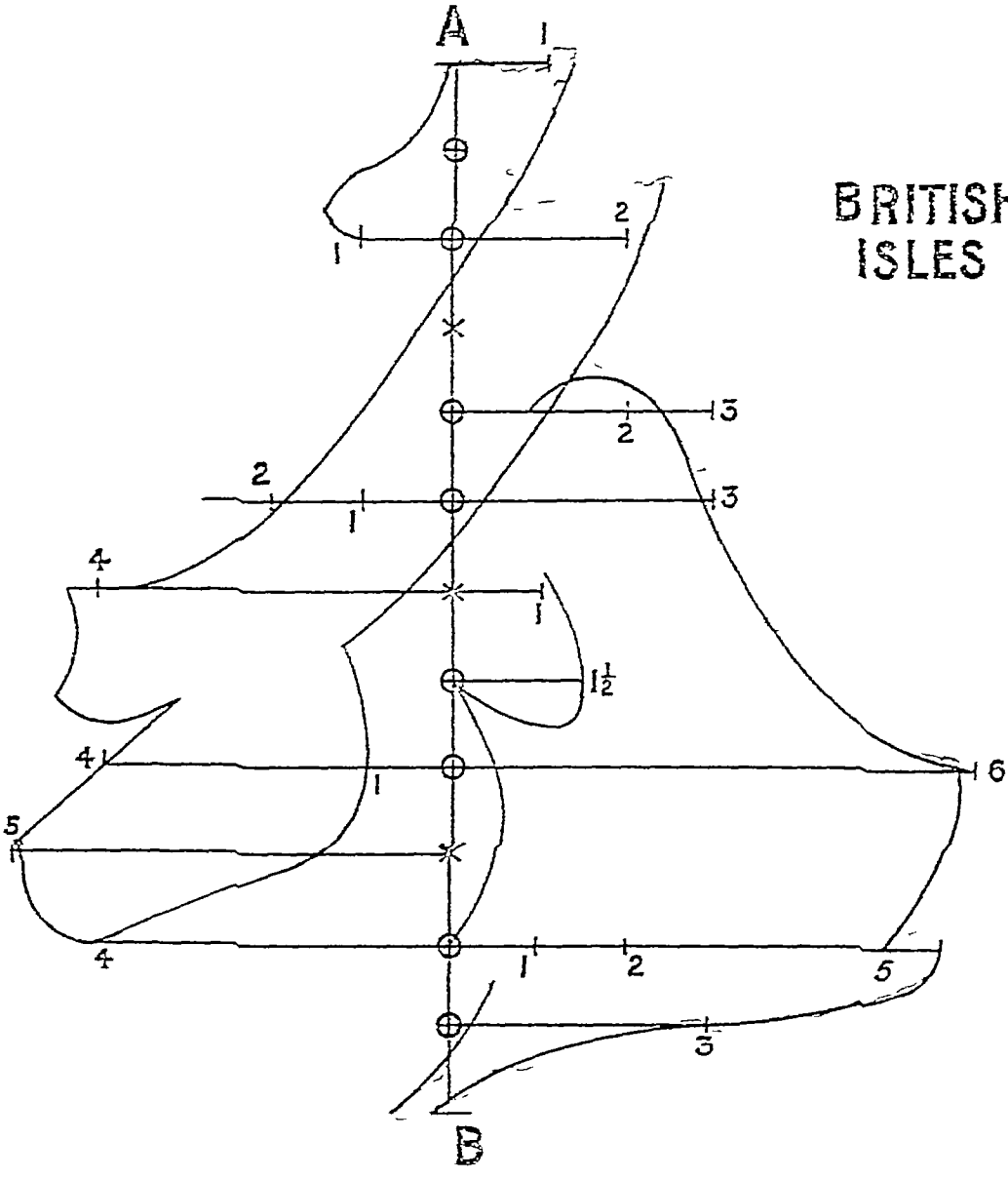

A
3
4
2
5
4
3
2
2
12
2
3
4
2
5
2
1½
B
SCOTLAND

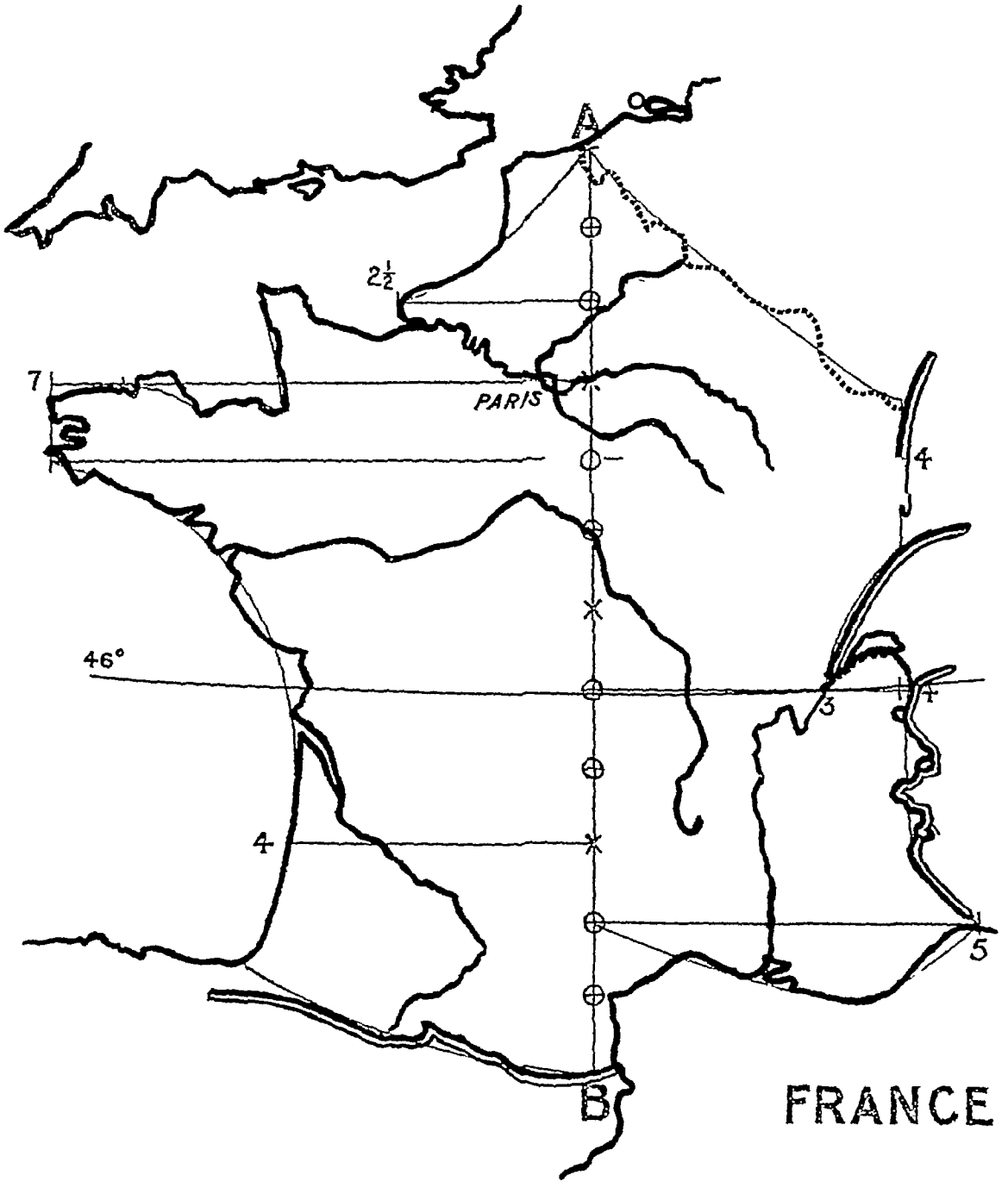

A
2
4
5
3
4
6
3
1
2
4
2
2
6°W
B
IRELAND

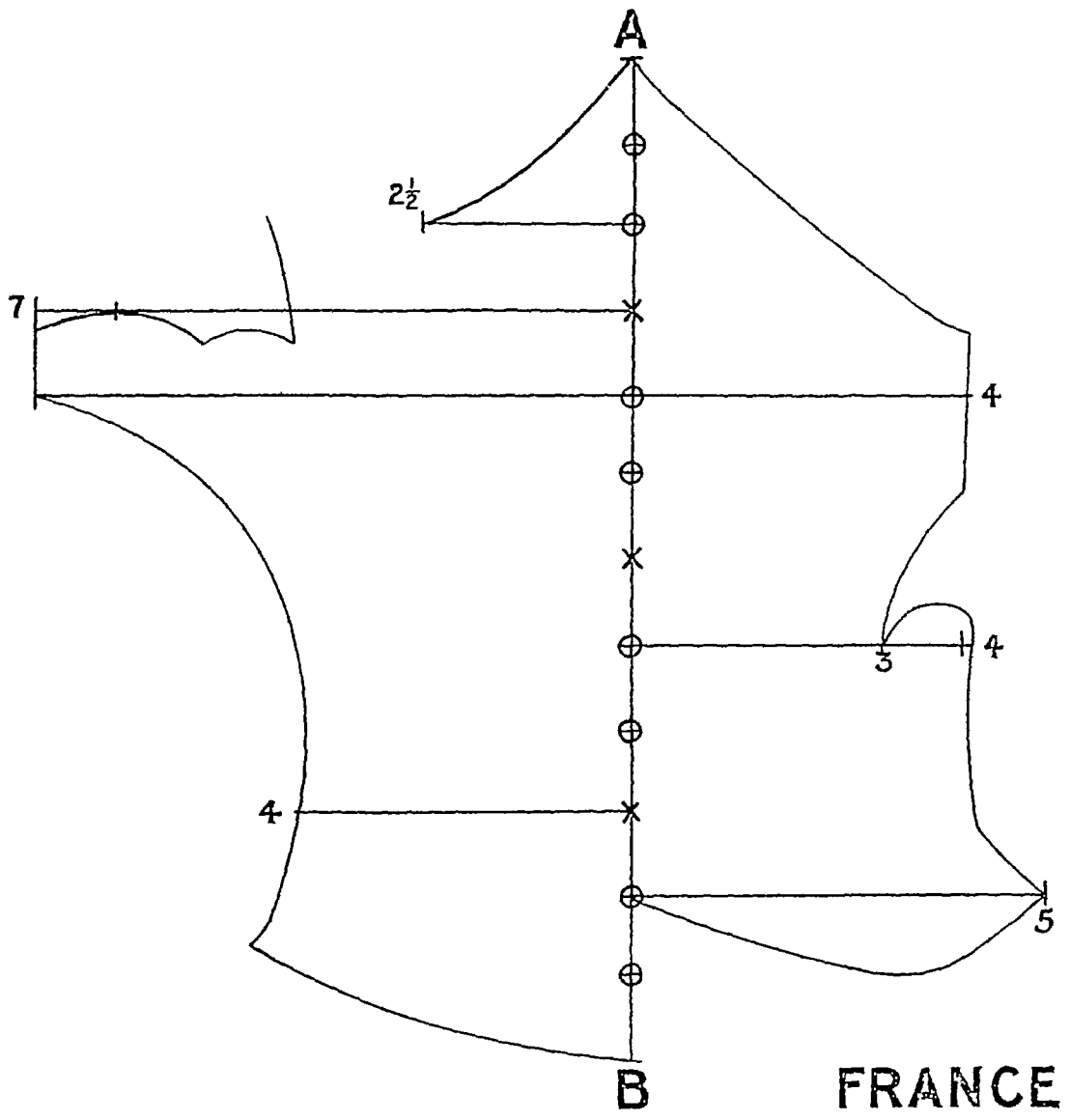


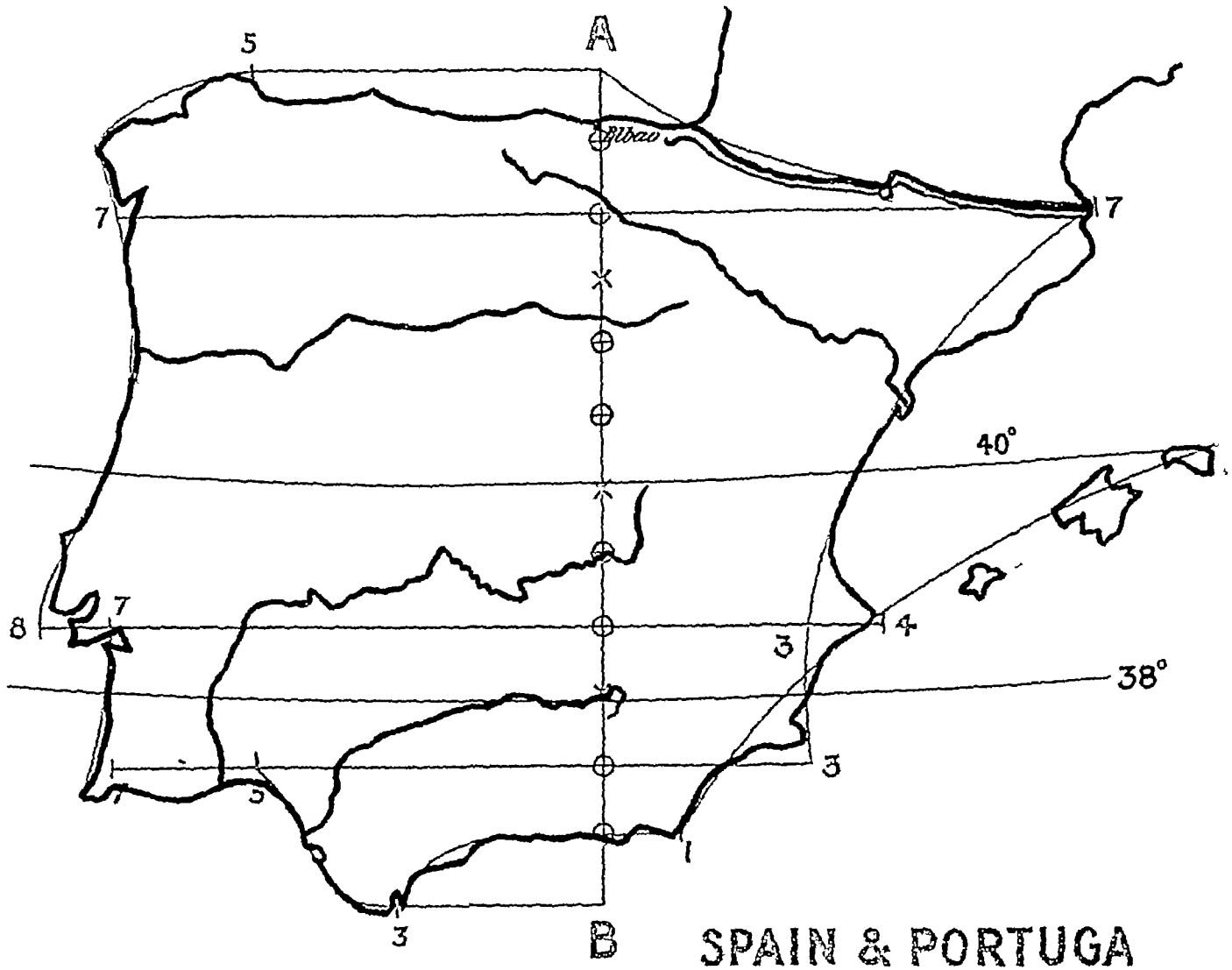
IRELAND


BRITISH
ISLES
A
B
6°

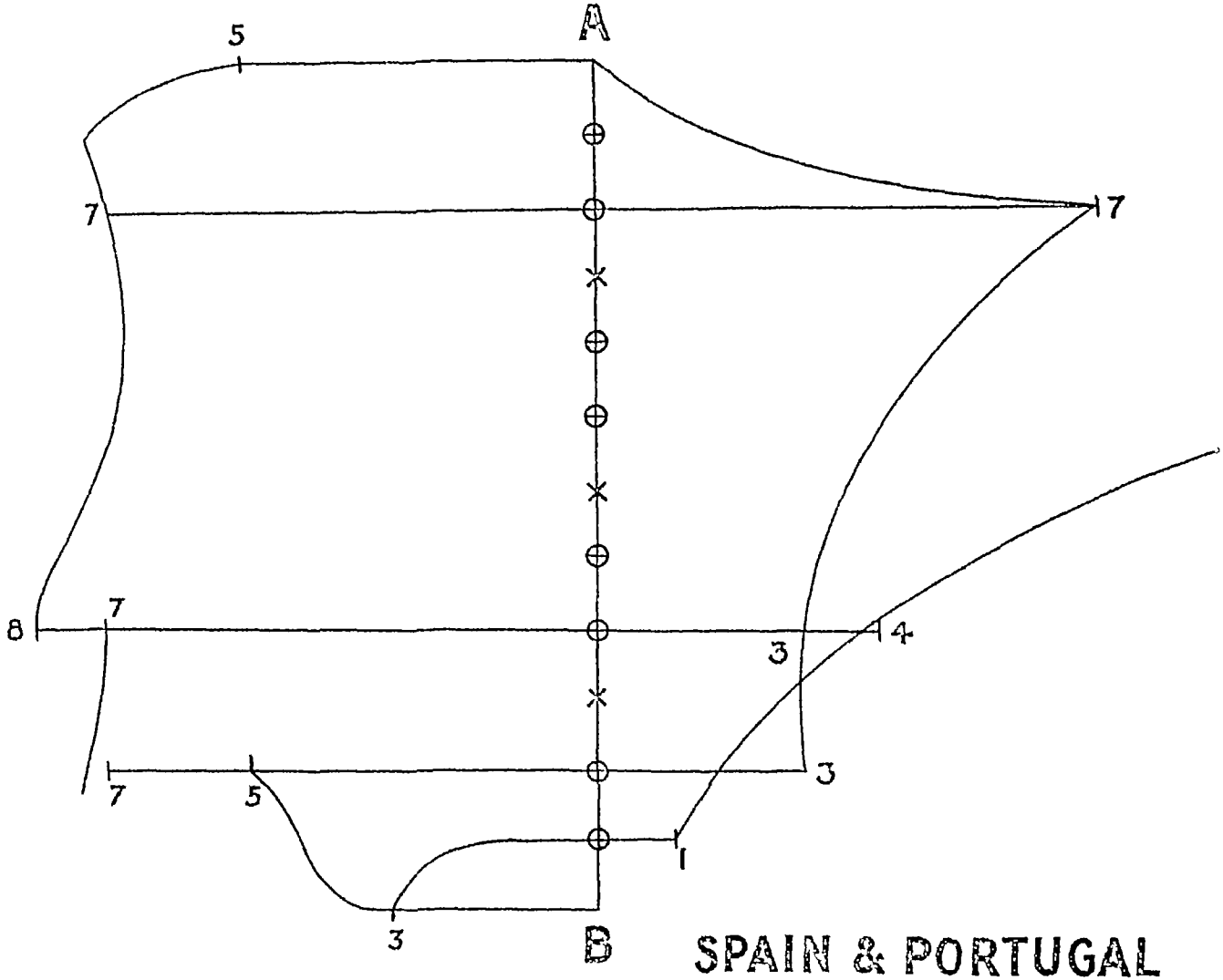

A
B
BRITISH
ISLES


A
2½
7
PARIS
4
46°
3
4
4
5
B
FRANCE


A
2½
7
4
3
4
4
5
B
FRANCE



SPAIN & PORTUGA



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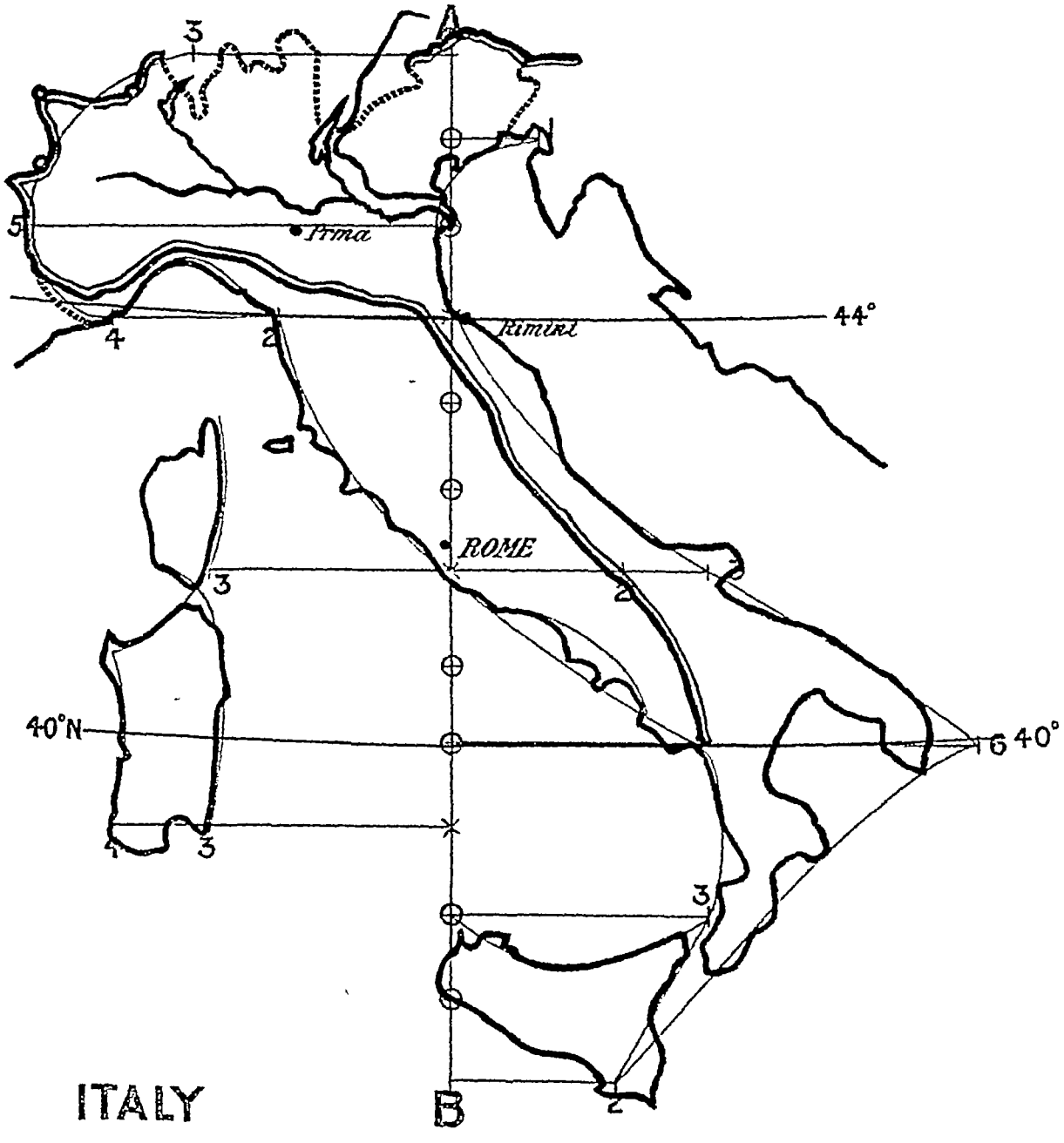

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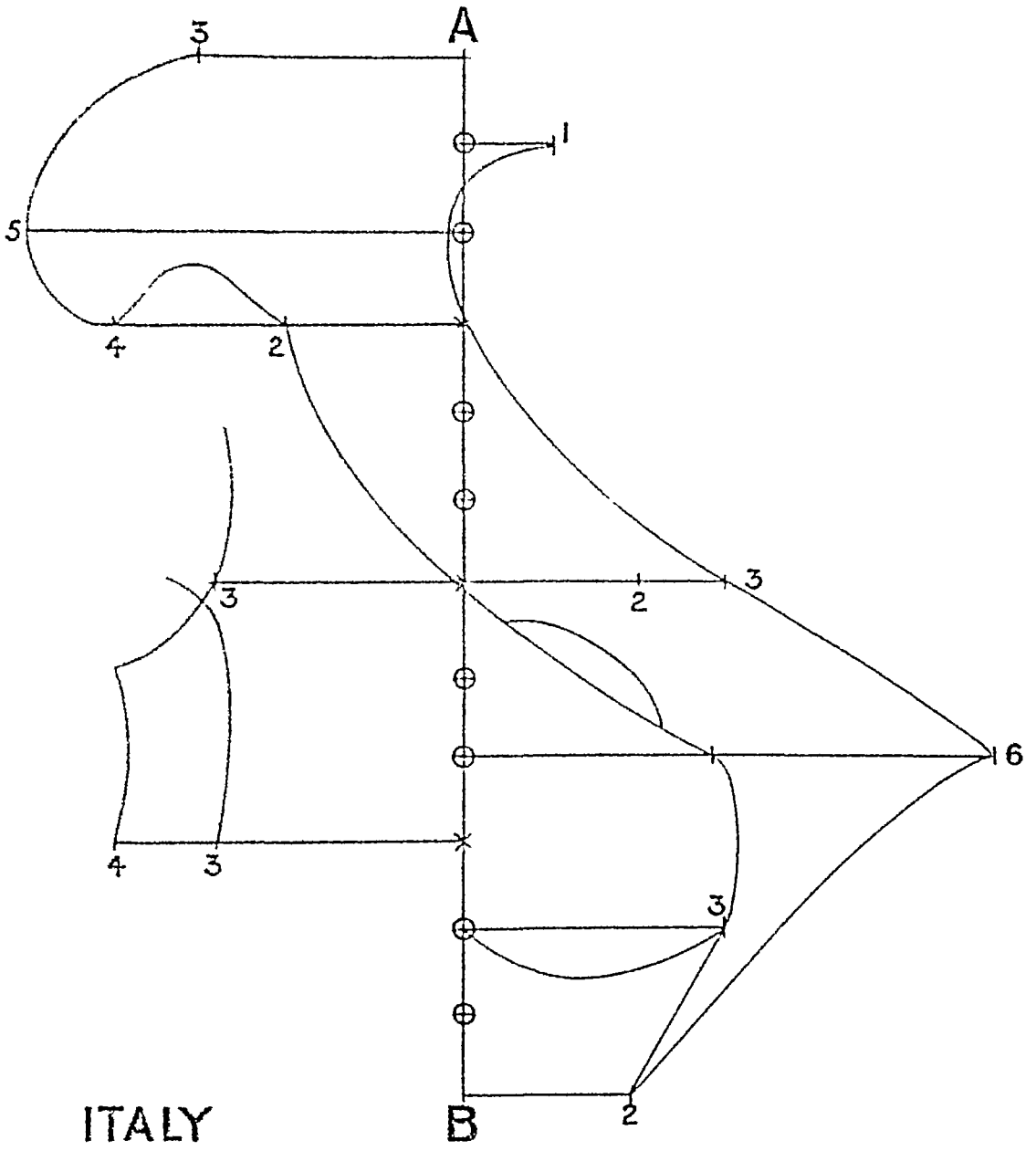
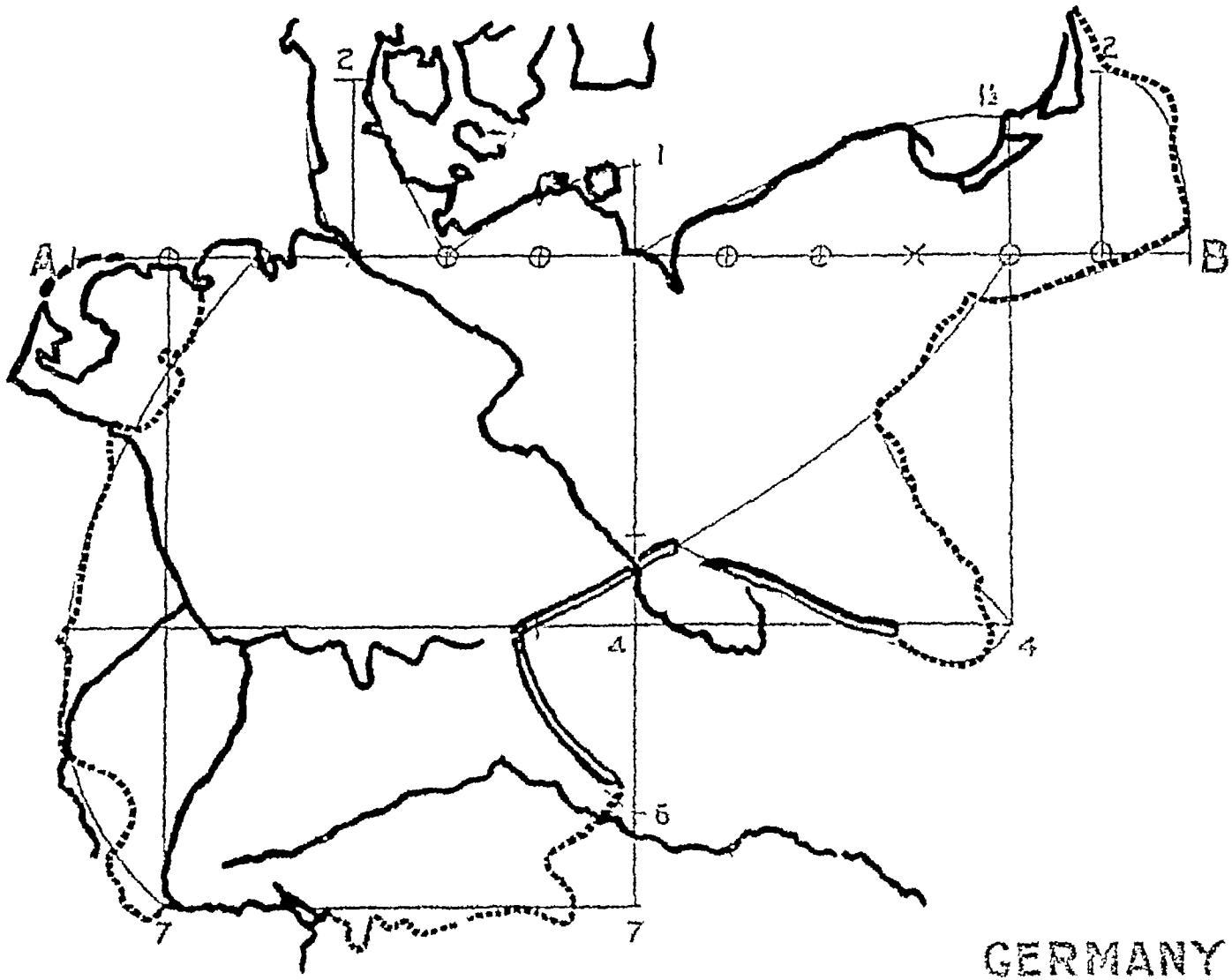
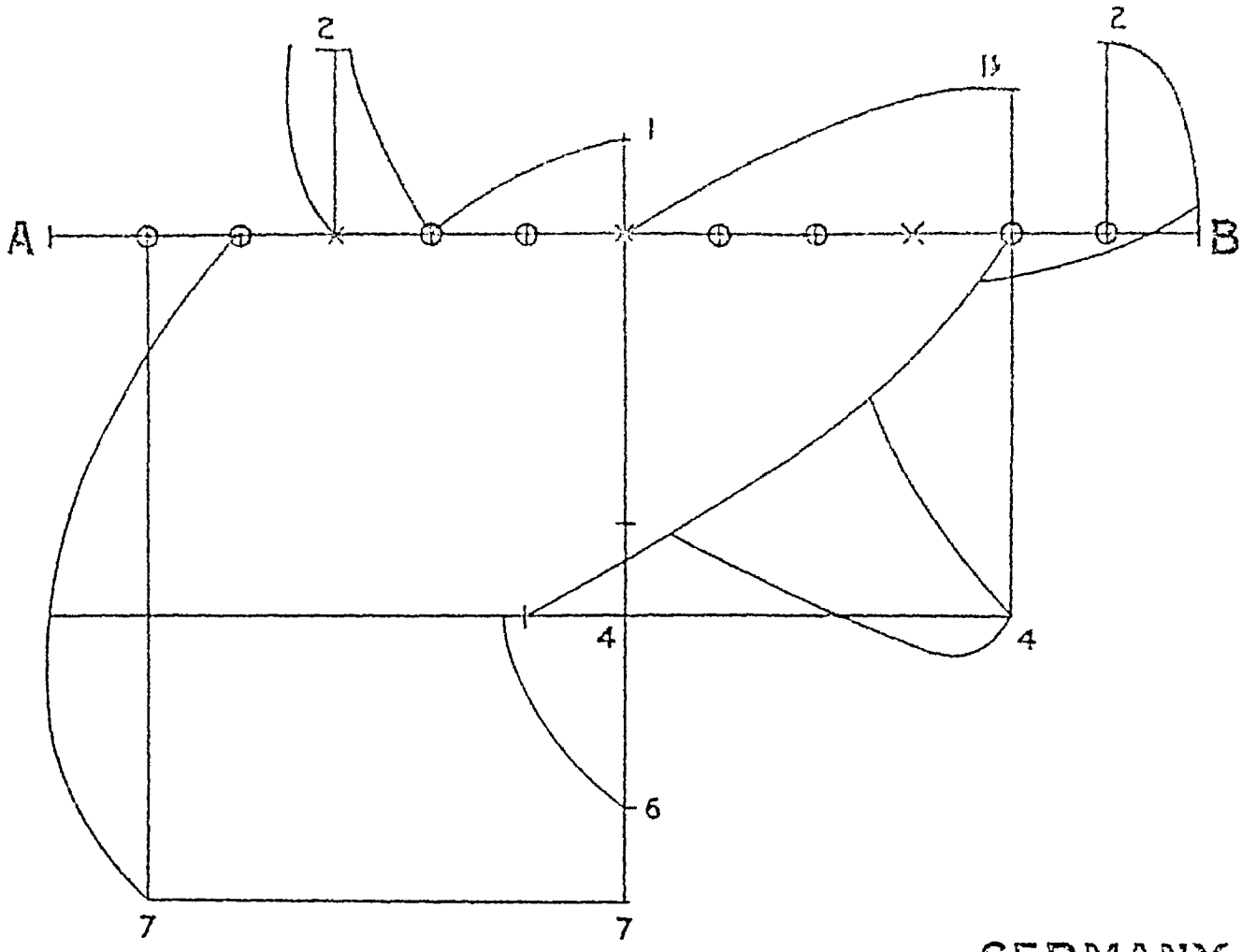
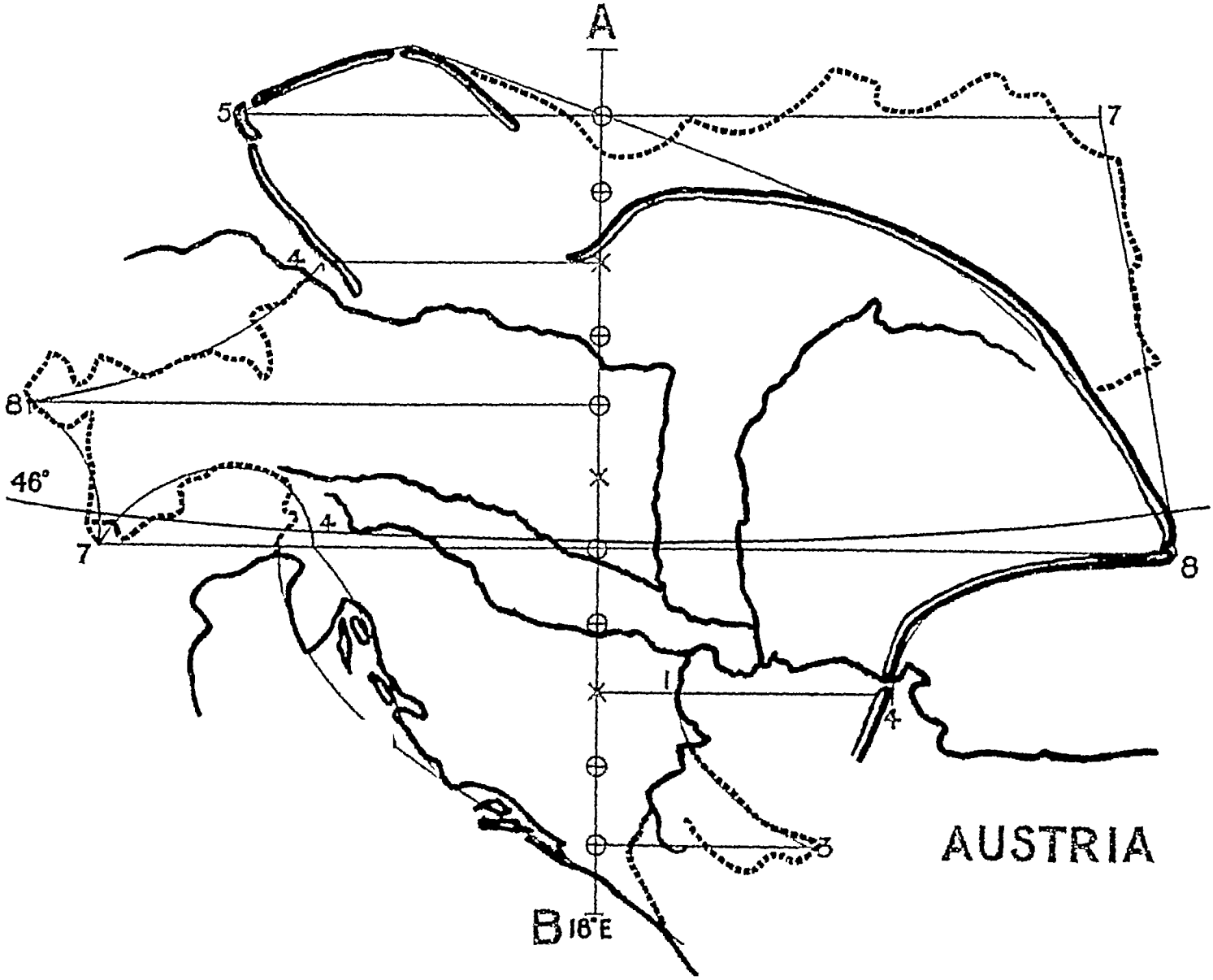
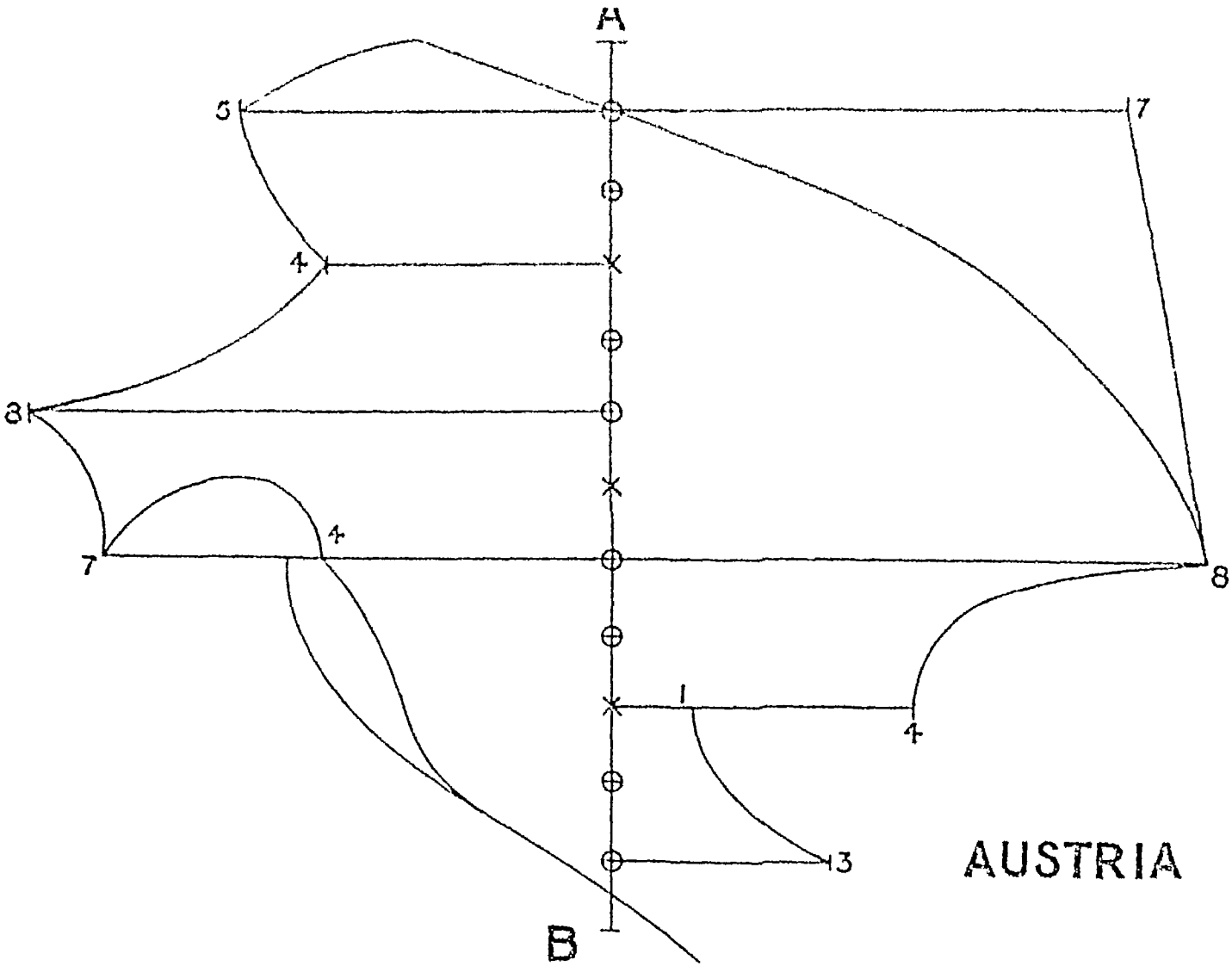

A
B
1
2
3
4
5
6
ITALY

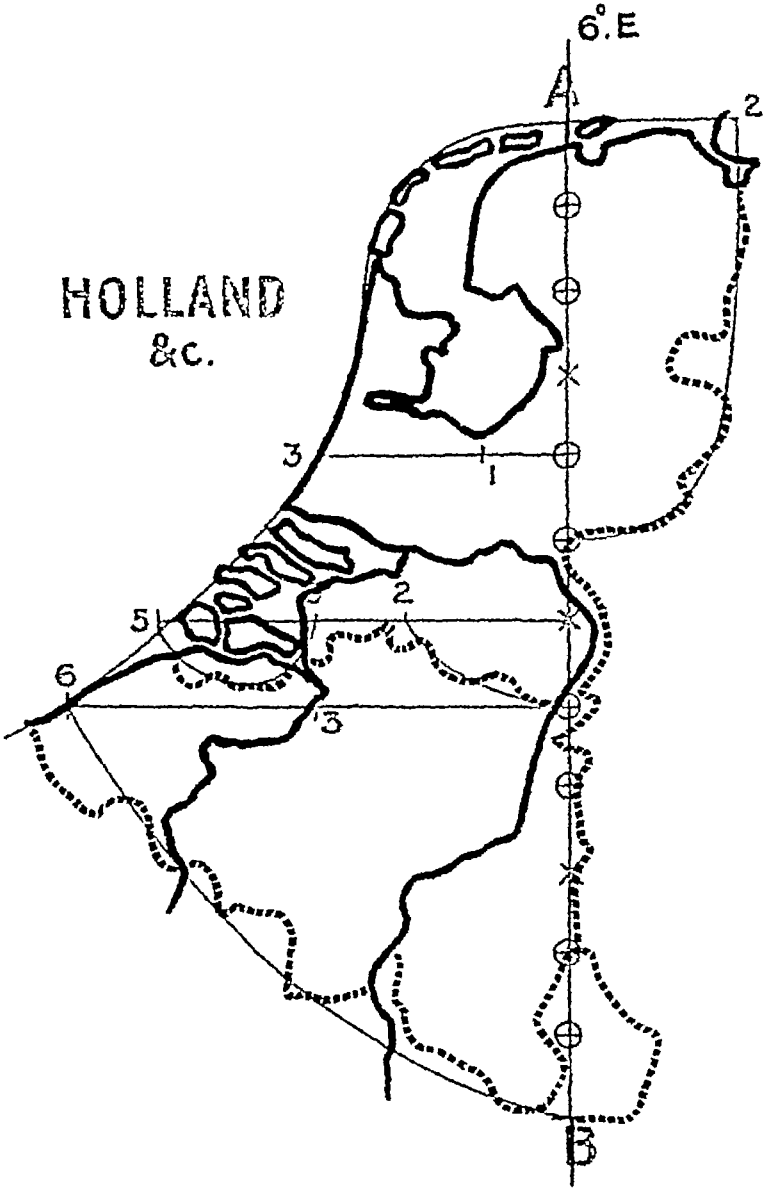

2
1½
1
2
A
B
4
4
5
7
7
GERMANY

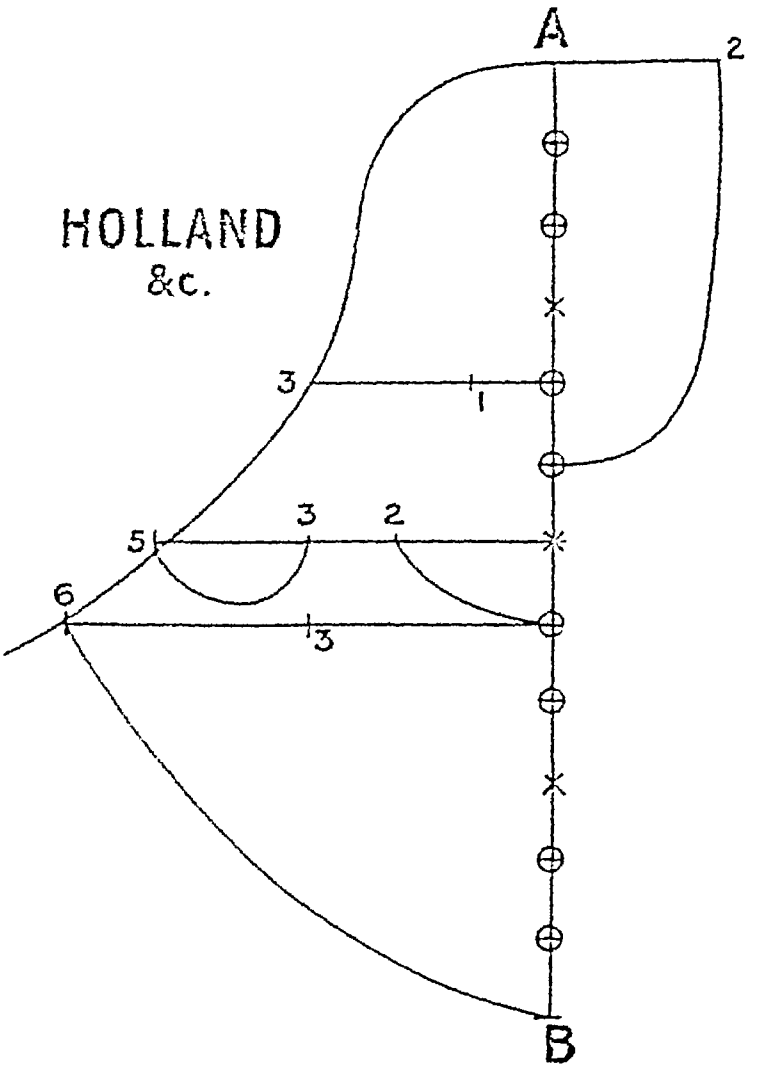


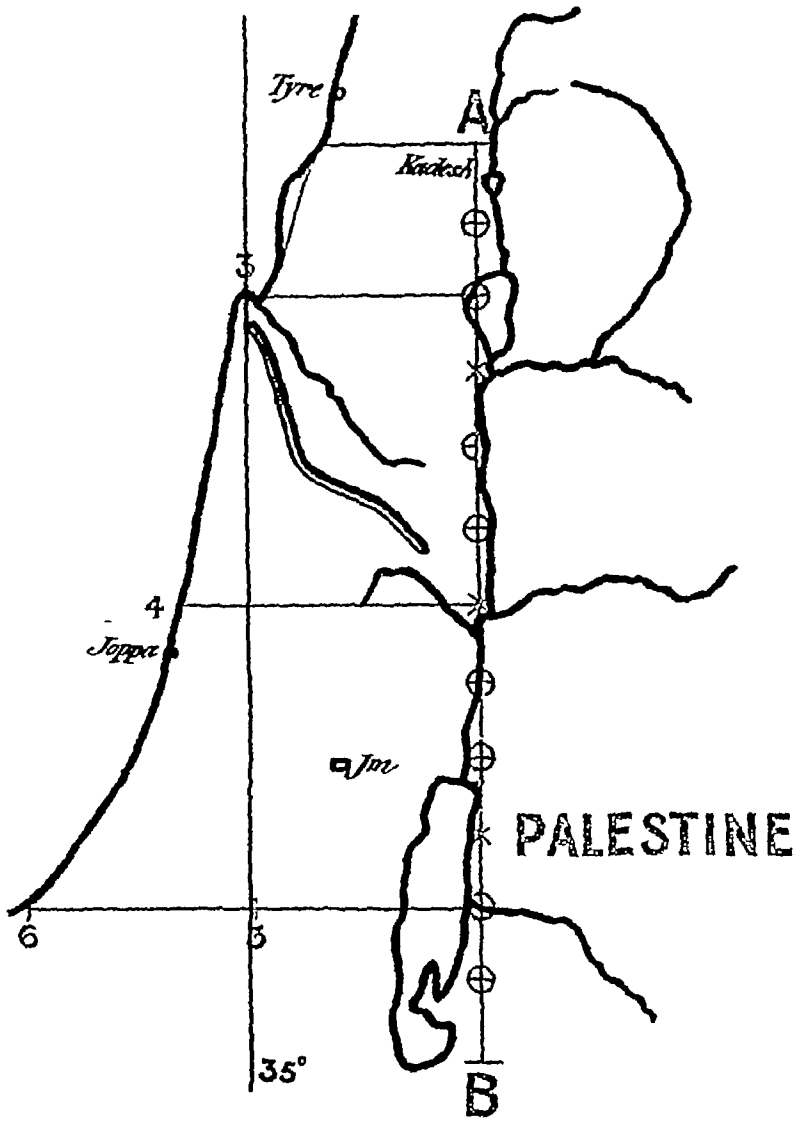
GERMANY

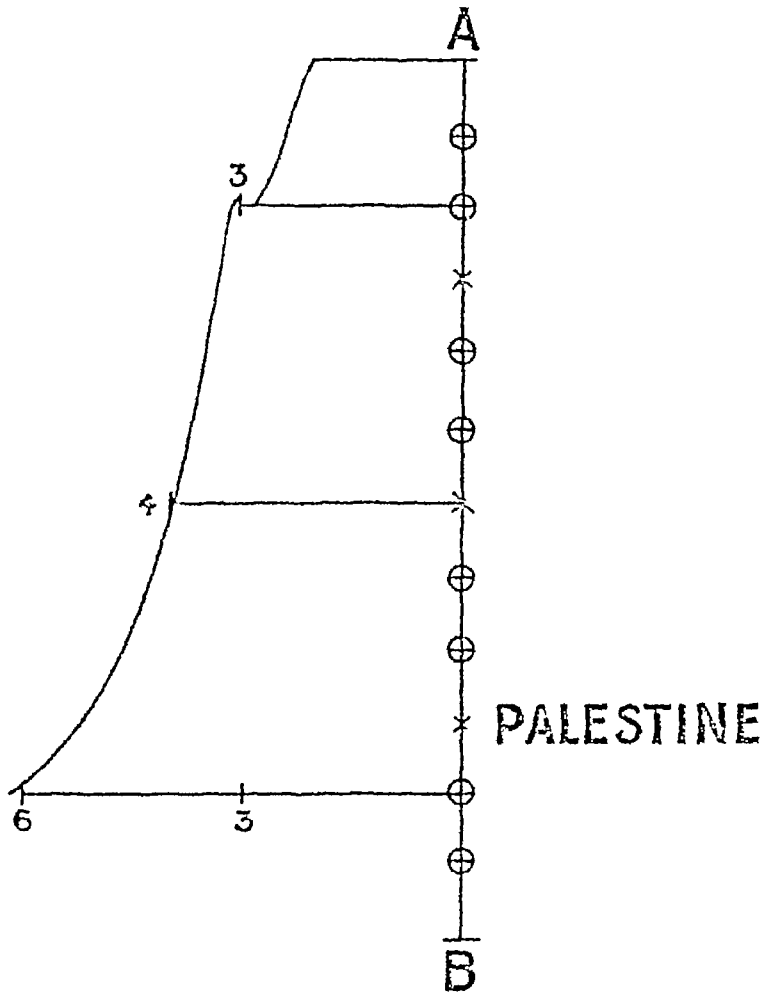

A
5
7
4
8
46°
7
4
8
1
4
3
AUSTRIA
B 16°E

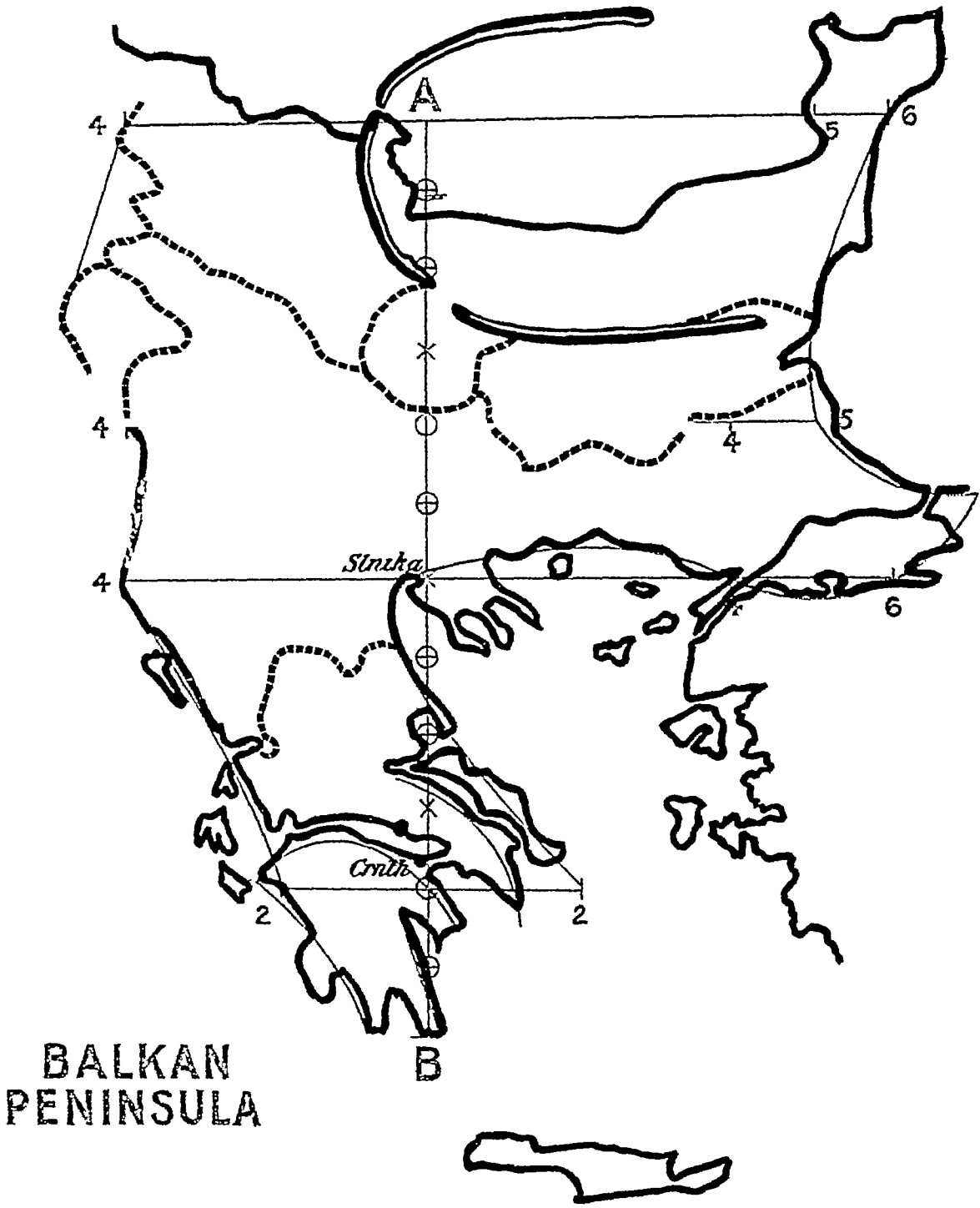

A
5
7
4
8
7
4
8
1
4
3
B
AUSTRIA


6° E
A
2
HOLLAND
&c.
3
1
2
5
6
3
B

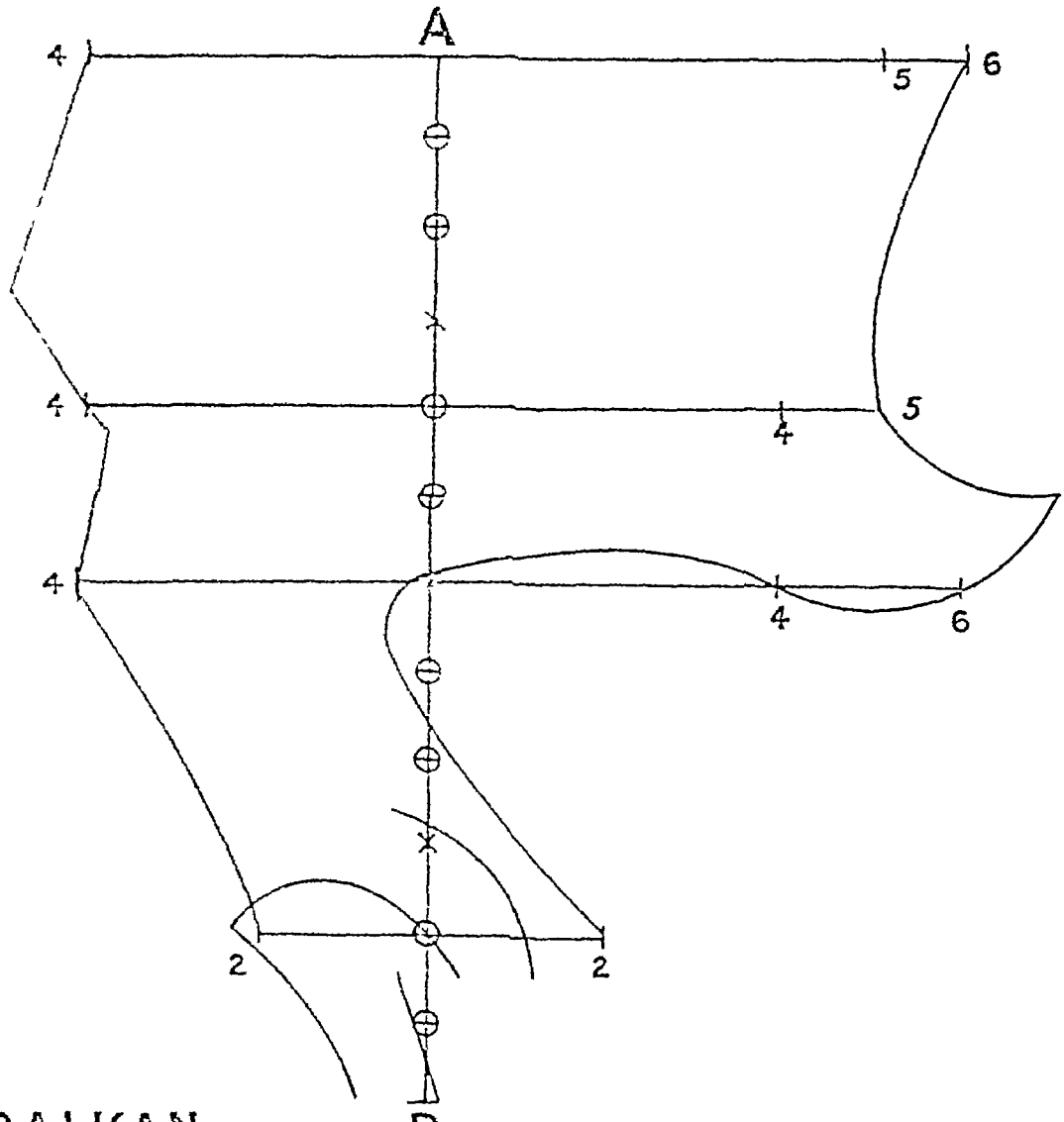

A
2
HOLLAND
&c.
3
1
5
3
2
6
3
B


Tyre
A
Kadesh
3
4
Joppa
Jm
PALESTINE
6
5
35°
B


A
3
4
PALESTINE
6
3
B



BALKAN
PENINSULA



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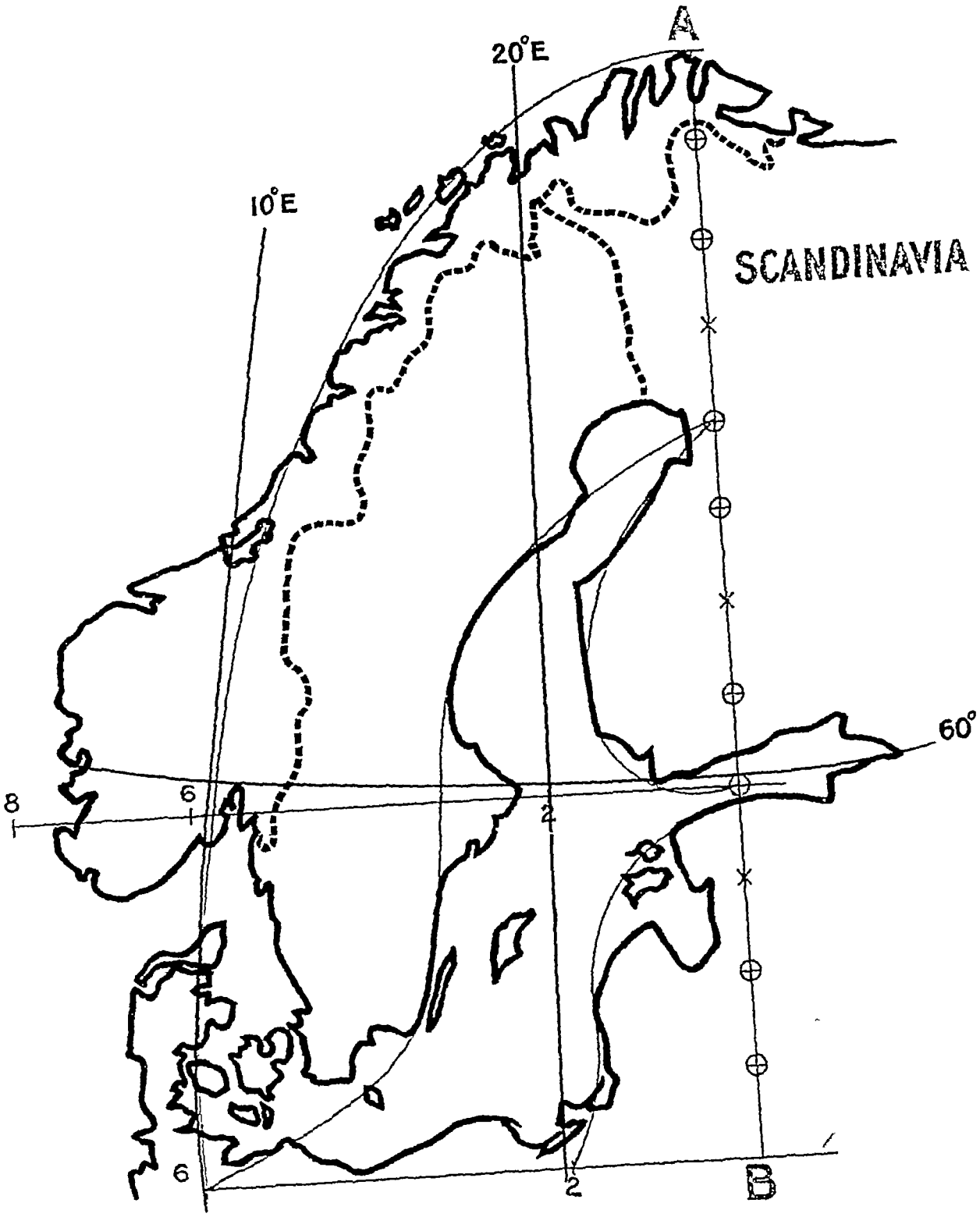
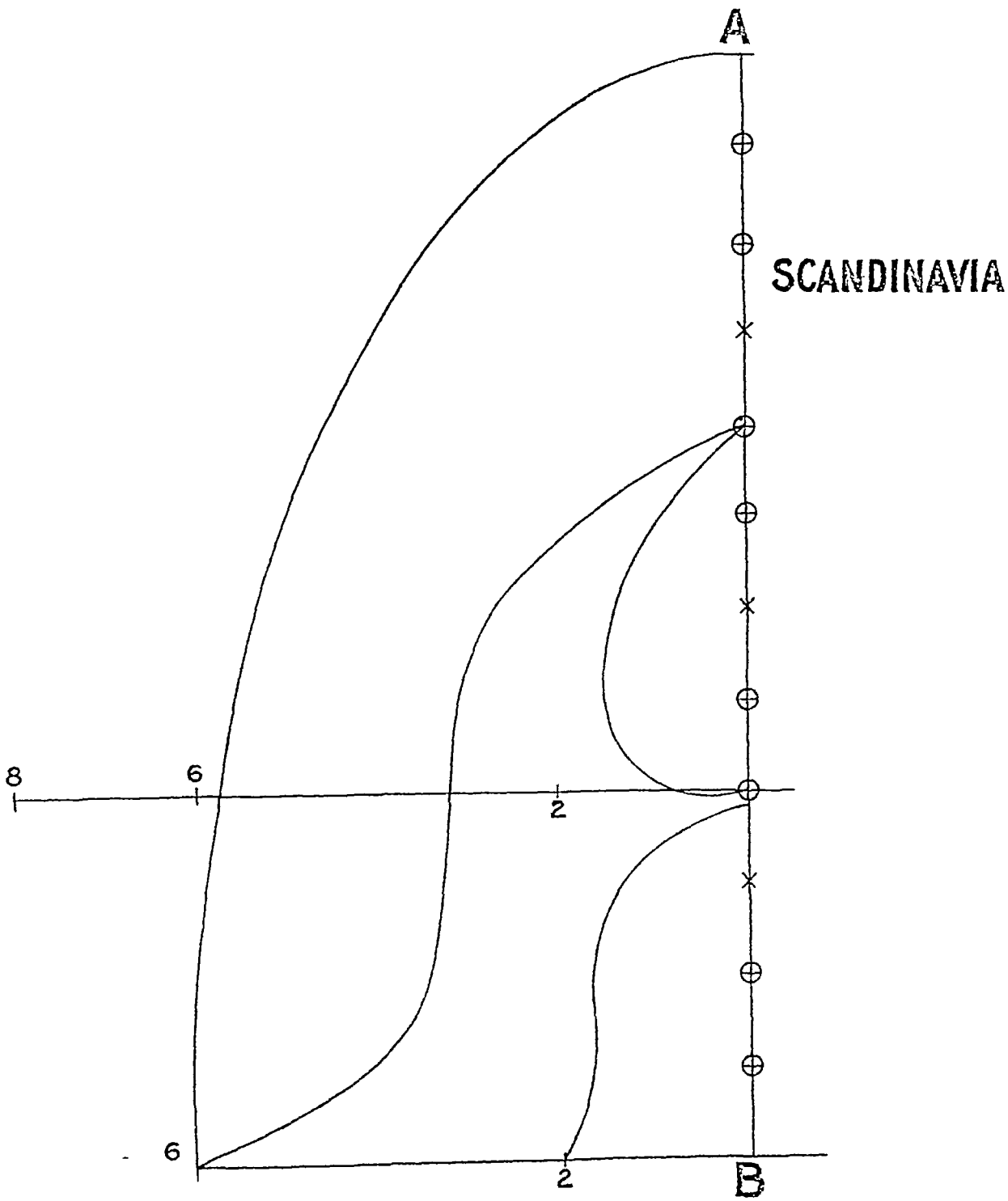
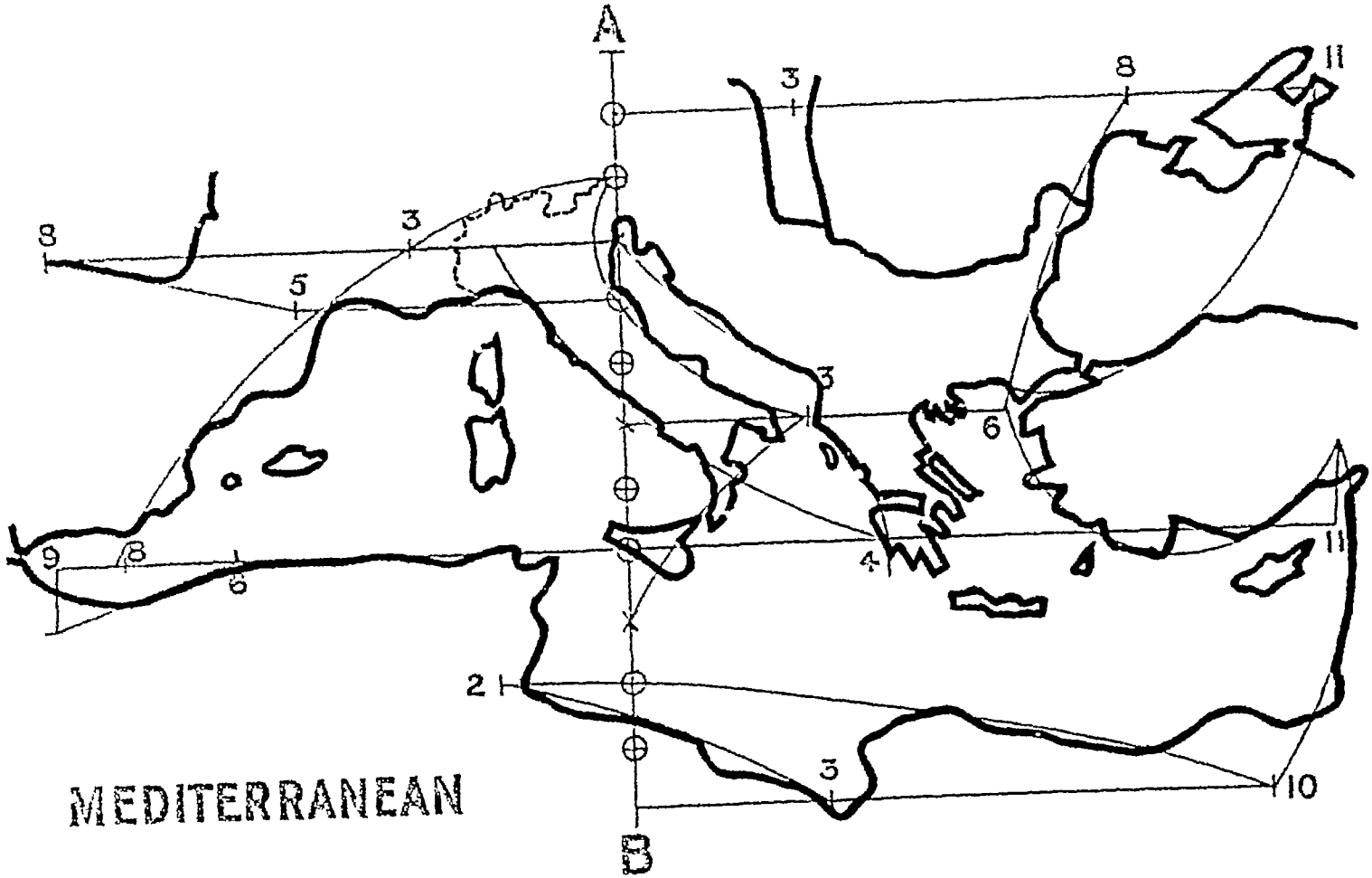
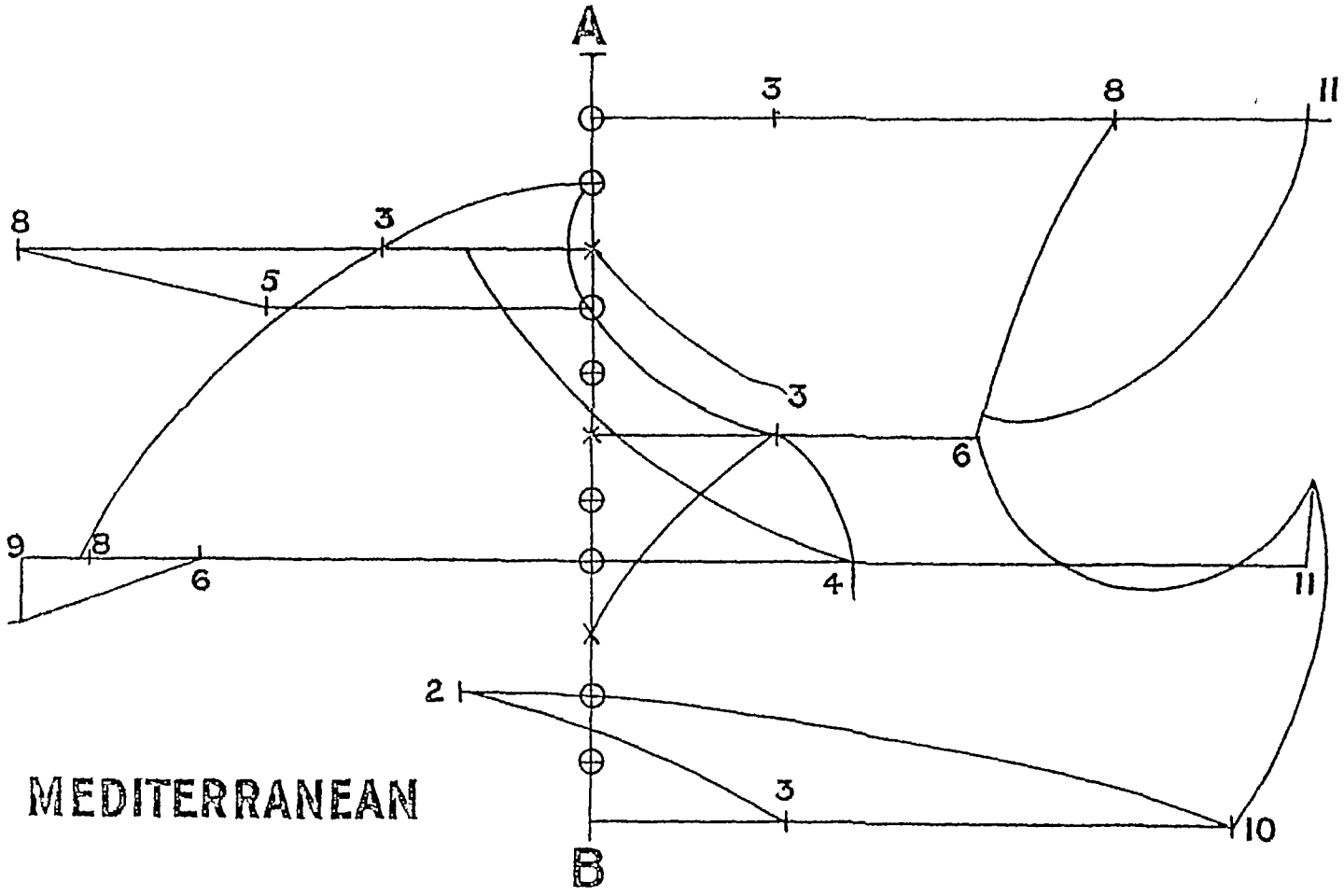
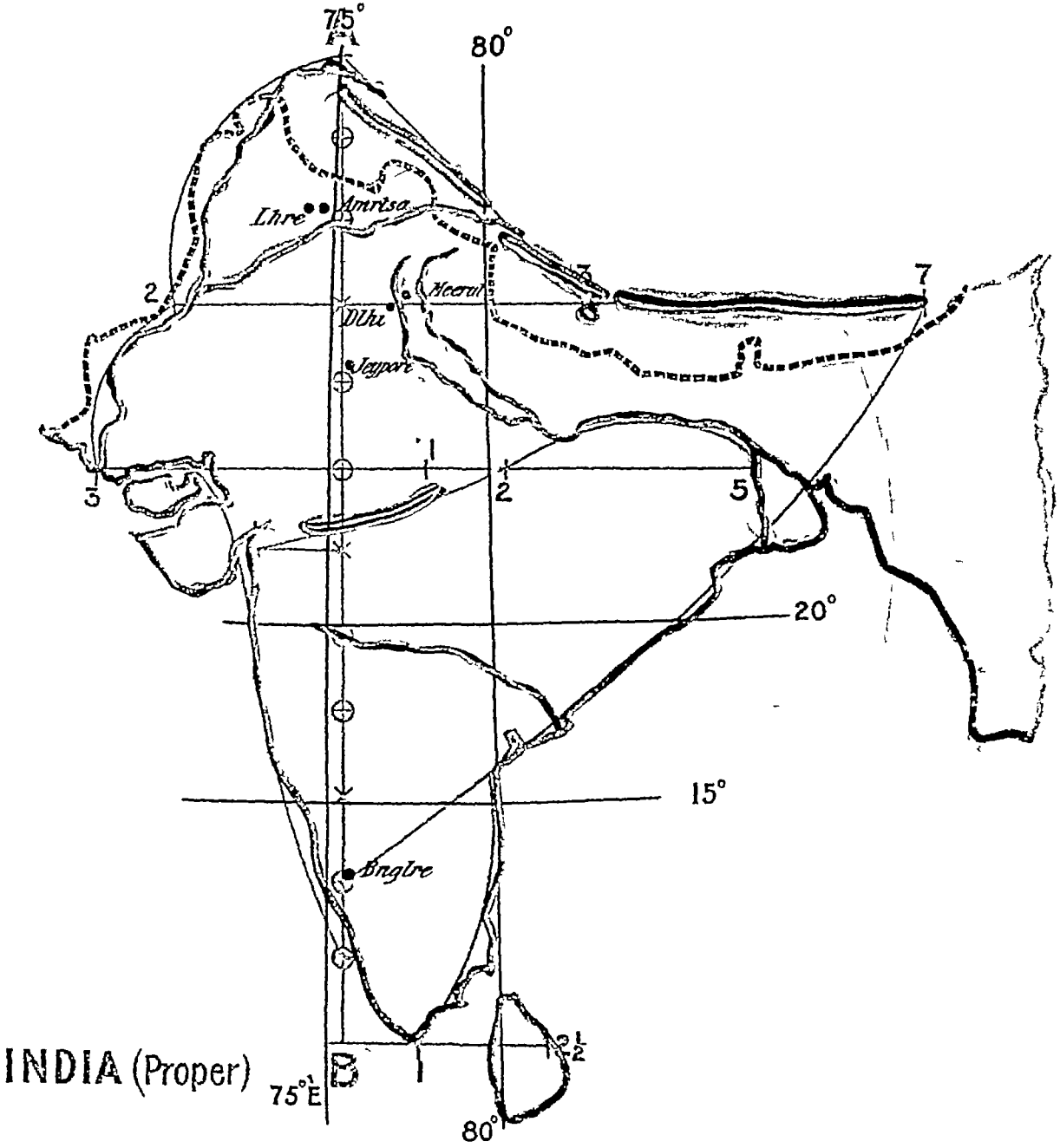
PENINSULA

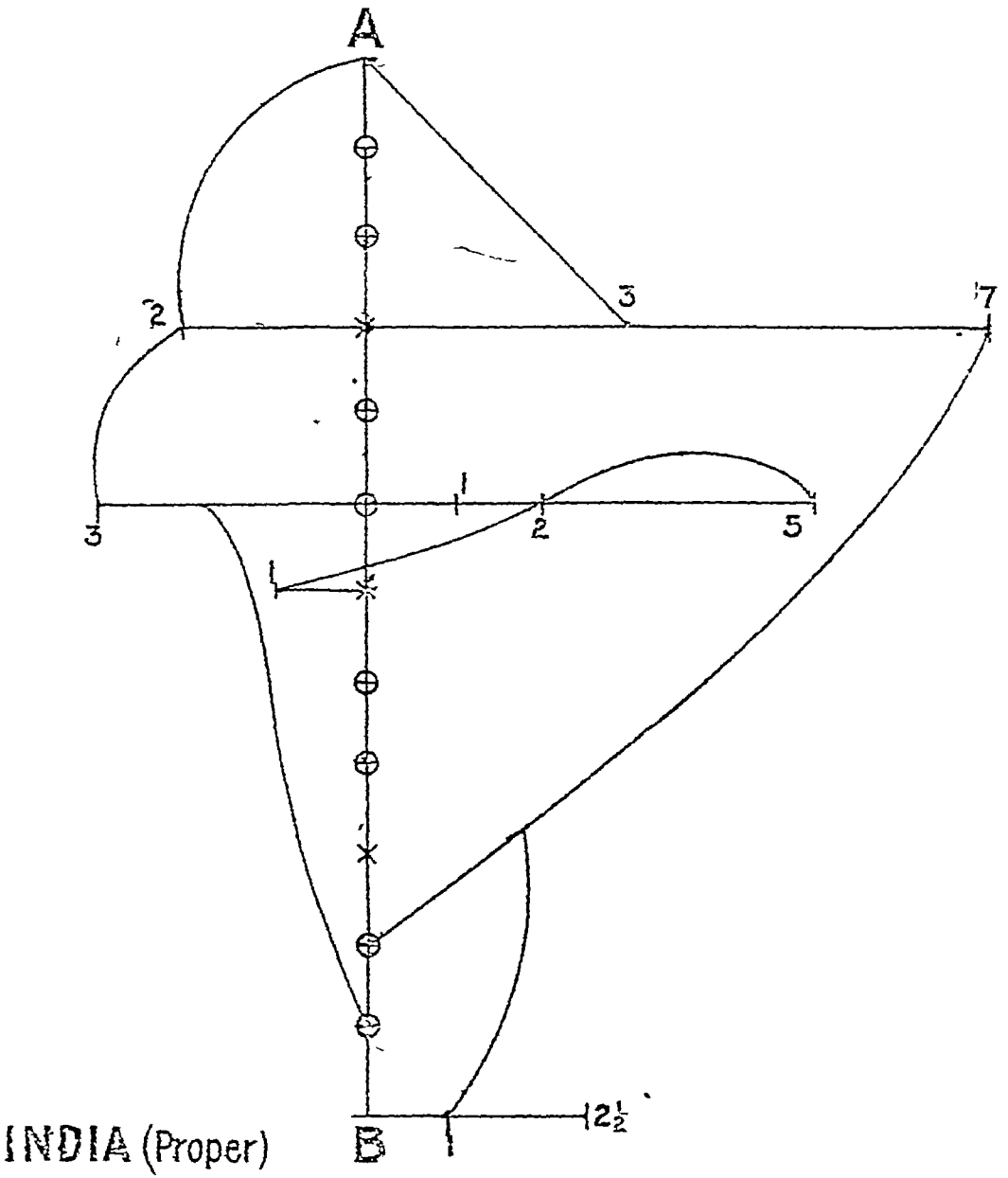

A
20°E
10°E
SCANDINAVIA
60°
8
6
4
6
2
2
B


A
SCANDINAVIA
8
6
2
6
2
B

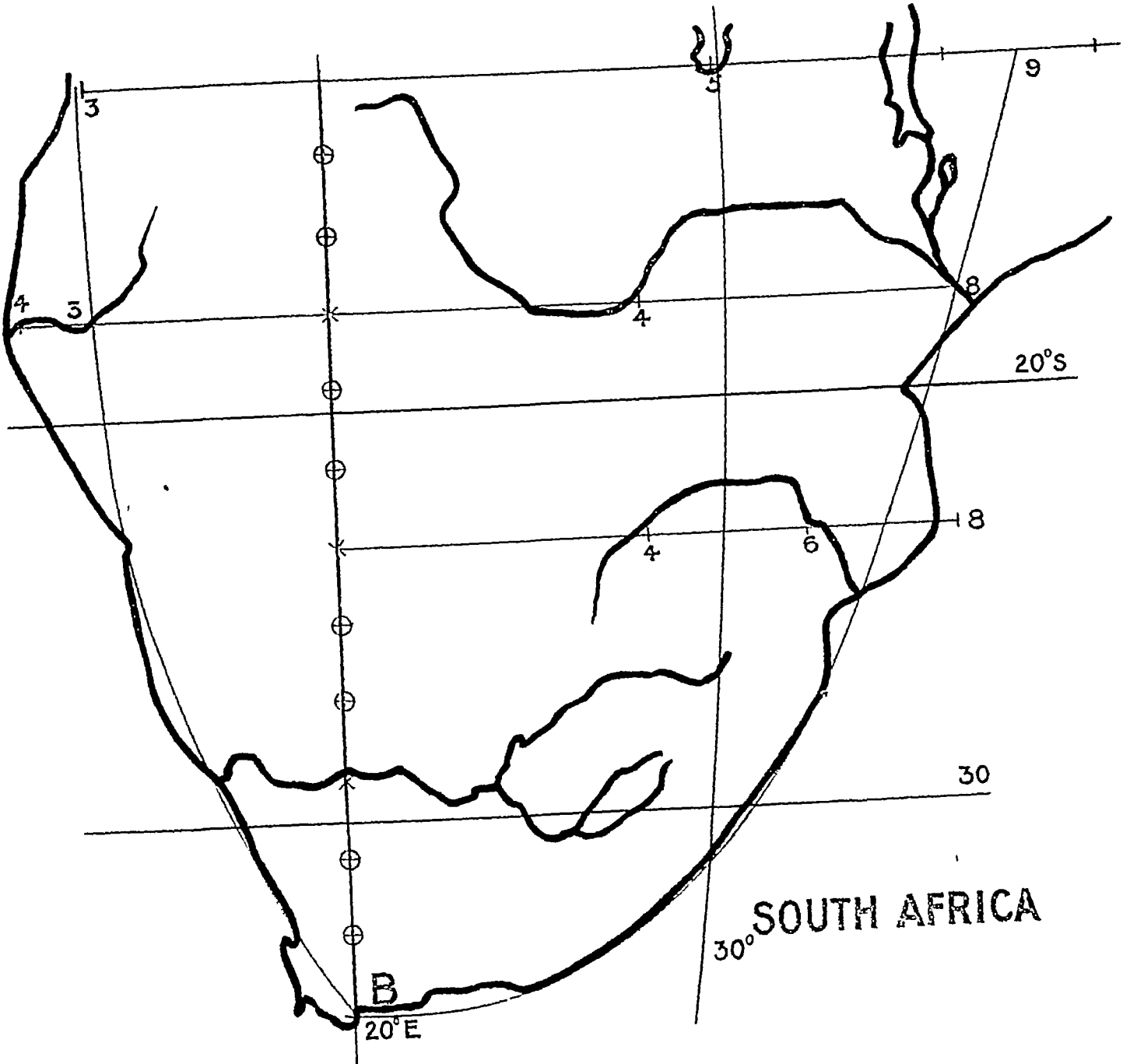

A
B
MEDITERRANEAN
3
8
11
8
3
5
3
6
9
8
8
4
11
2
3
10

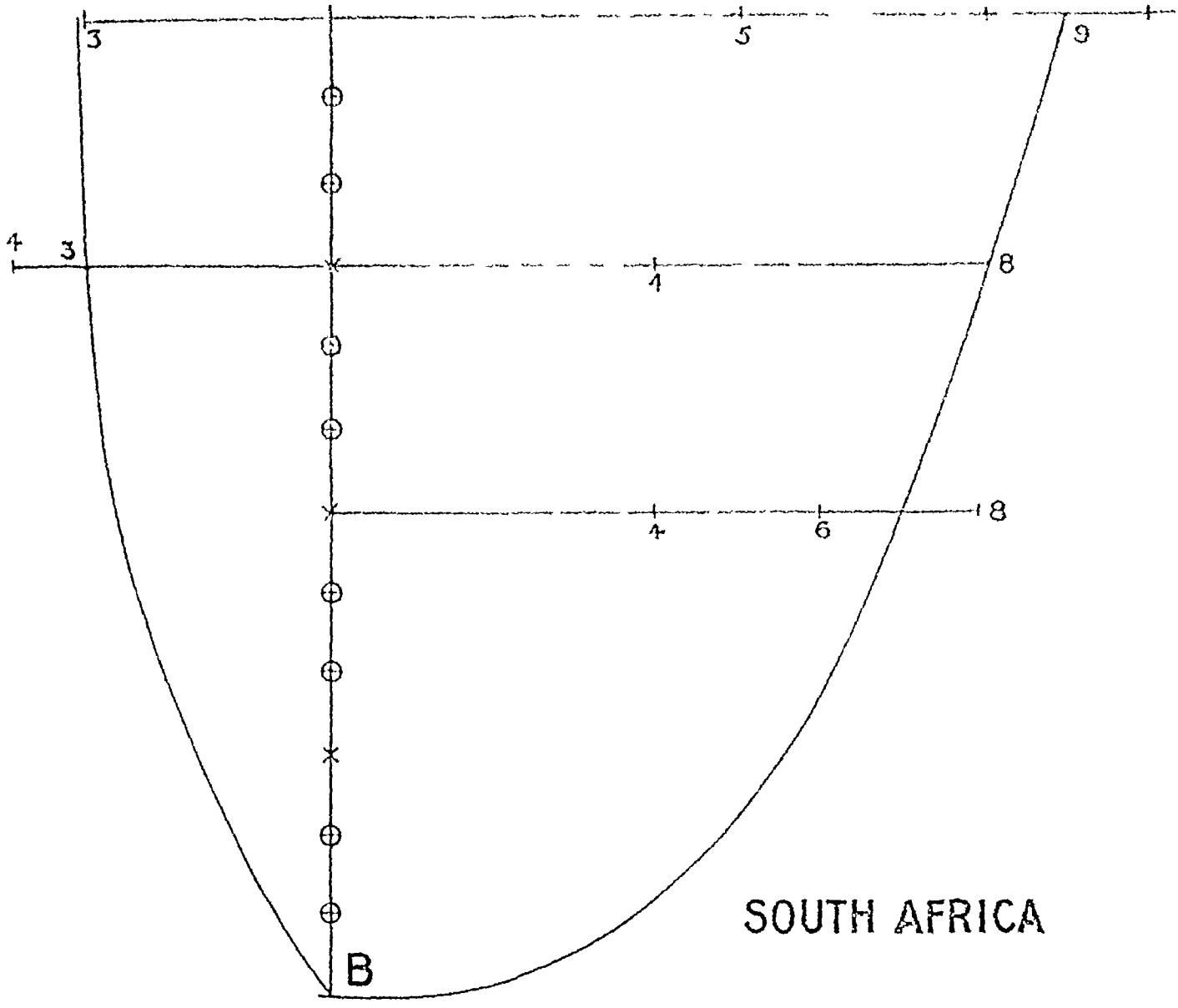

A
3
8
11
8
3
5
3
6
9
8
6
4
11
2
3
10
B
MEDITERRANEAN

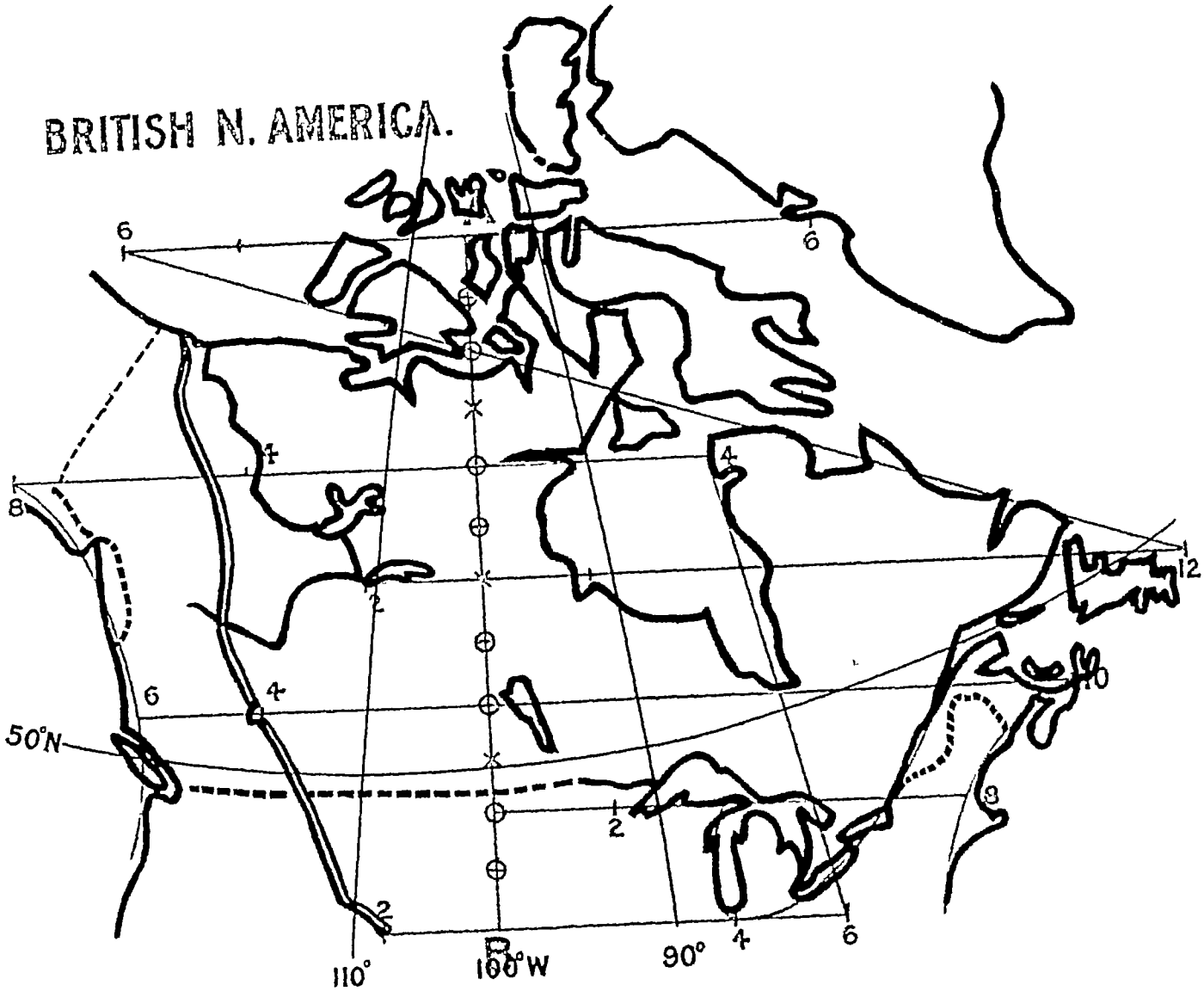
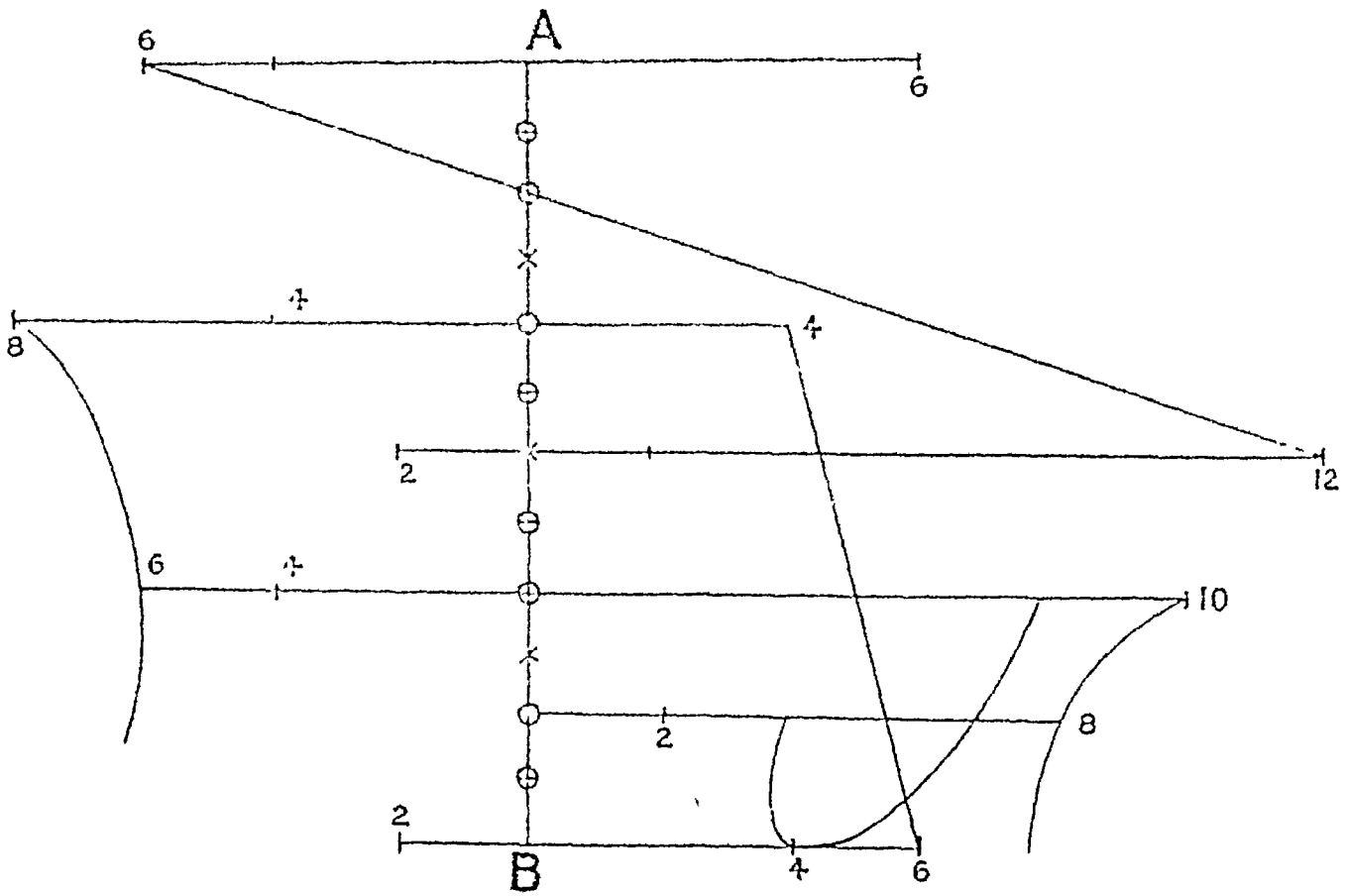

75°
80°
Lhre
Amrisa
Meerut
Dlhi
Jaypre
20°
15°
Bnglre
INDIA (Proper)
75°E
80°



INDIA (Proper)


3
5
9
4
3
4
8
20°S
8
4
6
30
30°
SOUTH AFRICA
B
20°E


3
5
9
4
3
1
8
4
6
8
B
SOUTH AFRICA


BRITISH N. AMERICA.
6
6
4
4
8
12
2
6
4
10
50°N
2
8
2
4
6
110°
100°W
90°

BRITISH N. AMERICA.